ADDENDUM NO. 3 31 July 2023
Harrington Public Library
Bid Package B

Bid opening has been extended to Tuesday, August 8, 2023 @ 2:00 PM.
The last day for questions has been extended to August 1, 2023 @ 2:00 PM.

NOTICE: Attach this addendum to the project manual for this project. It modifies and becomes a part of the contract documents. Work or materials not specifically mentioned herein are to be described in the main body of the specifications and as shown on the drawings. Bidders shall acknowledge receipt of this addendum on the space provided on the Bid Form. Failure to do so may subject the bidder to disqualification.

Whenever this Addendum modifies a portion of the Project Manual added information is shown as **Bold** and deleted information is shown as ~~strikethrough~~.

The contract documents for the above referenced project, dated July 7, 2023, are amended as follows:

GENERAL CLARIFICATIONS:

1. **Due date for bids has been extended to Tuesday, August 8, 2023 at 2:00 PM. The last day for questions has been extended to August 1, 2023 @ 2:00 PM.**
2. **EDiS bid form within the contract documents is required to be used, however Contractors are NOT required to copy bid form onto their respective companies letter heads.**

QUESTIONS AND ANSWERS:

See attached RFI log dated 31 July 2023

MODIFICATIONS TO SPECIFICATIONS:

1. **SECTION 000115 – LIST OF DRAWINGS**
   a. Delete specification section 000115 – List of Drawings in it's entirety and insert revised Section 000115 – List of drawings, annotated Addendum No. 3, dated 31 July 2023.

2. **SECTION 004100 – BID FORM**

   a. Delete bid form for contract B-05 Exterior Structural Stud Assembly, Metal Framing and Drywall in it's entirety and insert revised bid form for contract B-05, annotated Addendum No. 3, dated 31 July 2023.
   b. Delete bid form for contract B-13 Paint & VWC in it's entirety and insert revised bid form for Contract B-13, annotated Addendum No. 3, dated 31 July 2023.
   c. Delete bid form for contract B-23 Electrical in it's entirety and insert revised bid form for Contract B-23, annotated Addendum No. 3, dated 31 July 2023.

3. **SECTION 012300 – ALTERNATE** – Make the following pen and ink change:
   a. Paragraph 3.2/G/1 **– Add room 135**
4. **SECTION 042000 – UNIT MASONRY** – Make the following pen and ink change:
   a. Paragraph 2.6/B **– Add (BK-2) designation.**
5. **SECTION 072100 – THERMAL INSULATION** – Make the following pen and ink change:
   a. Paragraph 1.2/B – DELETE text, Section 072119 "Foamed-In-Place Insulation" for insulation at exterior walls.
6. **SECTION 072163 – FLUID APPLIED INSULATIVE COATINGS**
   a. **INSERT** specification section 072163 – Fluid-Applied Insulative Coatings that was not included in the initial bid documents.
7. **SECTION 092900 – GYPSUM BOARD** – Make the following pen and ink change:
   a. Paragraph 3.7/D/3 – Revise to read, Level 5: Gallery, 102.
8. **SECTION 284600 – DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM**
   a. **INSERT** specification section 284600 – Digital, Addressable Fire-Alarm System that was not included in the initial bid documents.

MODIFICATIONS TO DRAWINGS:

1. Remove sheets S-101, S-102, S-201, S-202, S-301, S-301, S-302, A003, A100, A101, A105, A201, A301, A302, A401, A402, A403, A510, A520, A521, A522, A523, A601, A602, A603, A605, A701, A702, A703 from project manual and replace with sheets labeled in kind, annotated BP-B Addendum #3, dated 07/28/23.
2. Remove sheets P-101, P-200, P-400, M-100, M-101, M-201, M-403, M-503, M-602, E-000, E-100, E-200, E-300, E-400, E-500, E-501, E-601, T-100, T-101, and T-103 from project manual and replace with sheets labeled in kind, annotated BP-B Addendum #3, dated 07/25/23.
3. Add sheets A-534 and S-203, annotated BP-B Addendum #3, dated 07/28/23 to this project manual.
4. Add sheet E-502, annotated BP-B Addendum #3, dated 07/25/23 to this project manual.

LIST OF ATTACHMENTS:

Section 000115 – List of Drawings
Section 004100 – Bid Form Contract B-05 Exterior Structural Stud Assembly, Metal Framing, and Drywall

Section 004100 – Bid Form Contract B-13 Paint & VWC
Section 004100 – Bid Form Contract B-23 Electrical
Section 072163 – Fluid Applied Insulative Coatings
Section 284600 – Digital, Addressable Fire-Alarm System
RFI Log, dated 07/31/2023
Addendum #3 Narrative issued by Becker Morgan Group dated 07/28/23
Addendum #3 Drawings

End of Addendum No. 3

SECTION 000115 LIST OF DRAWINGS

DRWG NO.	*DRAWING NAME*	*BID PACKS*	*ISSUE DATE*	*LATEST REV. DATE*
G001	COVER SHEET	B	7/17/23	
G101	LIFE SAFETY PLAN AND CODE STUDY	B	7/17/23	
G501	U.L. RATED ASSEMBLIES	B	7/17/23	
C-001	COVER SHEET	B	7/7/23	
C-101	EXISTING CONDITIONS PLANS	B	7/7/23	
C201	SITE, SIGNAGE & STRIPING PLAN	B	7/7/23	
C-301	UTILITY PLAN	B	7/7/23	
C-401	GRADING PLAN	B	7/7/23	
C-500	SEDIMENT & STORMWATER COVER SHEET	B	7/7/23	
C-501	PRE SITE STORMWATER MANAGEMENT PLAN CONSTRUCTION	B	7/7/23	
C-502	POST SITE STORMWATER MANAGEMENT PLAN CONSTRUCTION	B	7/7/23	
C-503	EROSION AND SEDIMENT CONTROL DETAIL SHEET	B	7/7/23	
C-504	EROSION AND SEDIMENT CONTROL DETAIL SHEET	B	7/7/23	
C-601	ENTRANCE PLAN CONSTRUCTION, SIGNAGE & STRIPING PLAN	B	7/7/23	
C-602	ENTRANCE PLAN GRADING PLAN	B	7/7/23	
C-603	ENTRANCE PLAN EROSION & SEDIMENT CONTROL PLAN	B	7/7/23	
C-604	ENTRANCE PLAN EROSION & SEDIMENT CONTROL DETAILS	B	7/7/23	
C-605	ENTRANCE PLAN EROSION & SEDIMENT CONTROL DETAILS	B	7/7/23	
C-606	ENTRANCE PLAN CONSTRUCTION DETAILS & NOTES	B	7/7/23	
C-607	ENTRANCE PLAN TYPICAL SECTIONS	B	7/7/23	
C-608	ENTRANCE PLAN CROSS SECTIONS	B	7/7/23	
C-609	ENTRANCE PLAN CROSS SECTIONS	B	7/7/23	
C-610	ENTRANCE PLAN CROSS SECTIONS	B	7/7/23	
C-611	ENTRANCE PLAN CROSS SECTIONS	B	7/7/23	
C-612	ENTRANCE PLAN CROSS SECTIONS	B	7/7/23	
C-613	ENTRANCE PLAN CROSS SECTIONS	B	7/7/23	
C-901	CONSTRUCTION DETAILS	B	7/7/23	

DRWG NO.	*DRAWING NAME*	*BID PACKS*	*ISSUE DATE*	*LATEST REV. DATE*
C-902	CONSTRUCTION DETAILS	B	7/7/23	
L-001	LANDSCAPE PLAN 0153060	B	7/7/23	
S100	STRUCTURAL NOTES	B	7/17/23	
S101	FOUNDATION PLAN	B	7/17/23	7/28/23
S102	LOW ROOF FRAMING PLAN	B	7/17/23	7/28/23
S103	HIGH ROOF FRAMING PLAN	B	7/17/23	
S201	TYPICAL SECTIONS & DETAILS	B	7/17/23	7/28/23
S202	TYPICAL SECTIONS & DETAILS	B	7/17/23	7/28/23
S203	FRAME ELEVATIONS	B	7/28/23	
S301	TYPICAL SECTIONS & DETAILS	B	7/17/23	7/28/23
S302	TYPICAL SECTIONS & DETAILS	B	7/17/23	7/28/23
A001	CONSTRUCTION TYPES-EXTERIOR WALLS	B	7/17/23	
A002	CONSTRUCTION TYPES-SLABS, CEILINGS, SOFFITS, ROOFS, AND FENCES	B	7/17/23	
A003	CONSTRUCTION TYPES-INTERIOR WALL TYPES	B	7/17/23	7/28/23
A100	ARCHITECTURAL SLAB EDGE PLAN	B	7/17/23	7/28/23
A101	FIRST FLOOR PLAN	B	7/17/23	7/28/23
A102	CLERESTORY FLOOR PLAN	B	7/17/23	
A103	ROOF PLAN	B	7/17/23	
A104	FIRST FLOOR REFLECTED CEILING PLAN	B	7/17/23	
A105	FINISH FLOOR PLAN, SCHEDULE, AND LEGEND	B	7/17/23	7/28/23
A106	ARCHITECTURAL SITE PLAN	B	7/17/23	
A107	ADD ALTERNATES PLAN NORTH N	B	7/17/23	
A201	EXTERIOR ELEVATIONS	B	7/17/23	7/28/23
A301	BUILDING SECTIONS	B	7/17/23	7/28/23
A302	WALL SECTIONS	B	7/17/23	7/28/23
A303	WALL SECTIONS	B	7/17/23	
A304	WALL SECTIONS	B	7/17/23	
A305	WALL SECTIONS	B	7/17/23	
A401	ENLARGED PLANS AND SECTIONS	B	7/17/23	7/28/23
A402	MILLWORK DETAILS	B	7/17/23	7/28/23
A403	MILLWORK DETAILS	B	7/17/23	7/28/23
A501	PLAN DETAILS	B	7/17/23	
A502	PLAN DETAILS	B	7/17/23	
A510	SECTION DETAILS/MISC. DETAILS	B	7/17/23	7/28/23
A511	SECTION DETAILS/MISC. DETAILS	B	7/17/23	
A520	ROOF DETAILS-GABLE ROOFS	B	7/17/23	7/28/23
A521	ROOF DETAILS-GABLE ROOFS	B	7/17/23	7/28/23
A522	ROOF DETAILS-LARGE CONFERENCE ROOM	B	7/17/23	7/28/23

DRWG NO.	*DRAWING NAME*	*BID PACKS*	*ISSUE DATE*	*LATEST REV. DATE*
A523	ROOF DETAILS-PARAPETS	B	7/17/23	7/28/23
A524	ROOF DETAILS-CANOPY	B	7/17/23	
A525	ROOF DETAILS -STUDY ROOMS / MISC.	B	7/17/23	
A530	TYPICAL MANUFACTURER'S DETAILS -TPO ROOFING	B	7/7/23	
A531	TYPICAL MANUFACTURER'S DETAILS -TPO ROOFING	B	7/17/23	
A532	TYPICAL MANUFACTURER'S DETAILS -TPO ROOFING	B	7/17/23	
A533	TYPICAL MANUFACTURER'S DETAILS -METAL ROOFING	B	7/17/23	
A534	TYPICAL AIR BARRIER/TRANSITION MEMBRANE DETAILS	B	07/28/23	
A601	DOOR AND WINDOW TYPES AND SCHEDULE	B	7/17/23	7/28/23
A602	STOREFRONT AND CURTAINWALL TYPES	B	7/17/23	7/28/23
A603	DOOR AND WINDOW DETAILS -HEADS	B	7/17/23	7/28/23
A604	DOOR AND WINDOW DETAILS -JAMBS	B	7/17/23	
A605	DOOR AND WINDOW DETAILS -SILLS	B	7/17/23	7/28/23
A701	INTERIOR ELEVATIONS	B	7/17/23	7/28/23
A702	INTERIOR ELEVATIONS -ADULT COLLECTION AND LARGE CONFERENCE ROOM	B	7/17/23	7/28/23
A703	INTERIOR ELEVATIONS - CHILDREN'SCOLLECTION AND TEEN LOUNGE	B	7/17/23	7/28/23
P-001	PLUMBING LEGEND	B	7/17/23	
P-100	PLUMBING UNDERSLAB NEW WORK PLAN	B	7/17/23	
P-101	PLUMBING FIRST FLOOR NEW WORK PLAN	B	7/17/23	7/25/23
P-102	PLUMBING ROOF NEW WORK PLAN	B	7/17/23	
P-200	PLUMBING ENLARGED PLANS	B	7/17/23	7/25/23
P-300	PLUMBING DETAILS AND SCHEDULES	B	7/17/23	
P-400	PLUMBING DIAGRAMS	B	7/17/23	7/25/23
M-001	MECHANICAL LEGEND	B	7/17/23	
M-100	MECHANICAL THERMAL ZONES FIRST FL PLAN	B	7/17/23	7/25/23
M-101	MECHANICAL AIR DISTRIBUTION FIRST FL PLAN	B	7/17/23	7/25/23
M-102	MECHANICAL PIPING FIRST FLOOR PLAN	B	7/17/23	
M-103	MECHANICAL ROOF PLAN	B	7/17/23	
M-201	MECHANICAL ENLARGED PLANS	B	7/17/23	7/25/23
M-301	MECHANICAL SECTIONS	B	7/17/23	
M-302	MECHANICAL SECTIONS	B	7/17/23	
M-401	MECHANICAL DETAILS	B	7/17/23	

DRWG NO.	*DRAWING NAME*	*BID PACKS*	*ISSUE DATE*	*LATEST REV. DATE*
M-402	**MECHANICAL DETAILS**	**B**	**7/17/23**	
M-403	**MECHANICAL DETAILS**	**B**	**7/17/23**	**7/25/23**
M-404	**MECHANICAL DETAILS**	**B**	**7/17/23**	
M-501	**MECHANICAL CONTROLS**	**B**	**7/17/23**	
M-502	**MECHANICAL CONTROLS**	**B**	**7/17/23**	
M-503	**MECHANICAL CONTROLS**	**B**	**7/17/23**	**7/25/23**
M-601	**MECHANICAL SCHEDULES**	**B**	**7/7/23**	
M-602	**MECHANICAL SCHEDULES**	**B**	**7/17/23**	**7/25/23**
E-000	**ELECTRICAL LEGEND**	**B**	**7/17/23**	**7/25/23**
E-100	**ELECTRICAL LIGHTING NEW WORK -FIRST FL**	**B**	**7/17/23**	**7/25/23**
E-200	**ELECTIRCAL POWER NEW WORK -FIRST FL**	**B**	**7/17/23**	**7/25/23**
E-201	**ELECTRICAL POWER NEW WORK -ROOF**	**B**	**7/17/23**	
E-300	**ELECTRICAL SYSTEMS WORK -FIRST FLOOR**	**B**	**7/17/23**	**7/25/23**
E-400	**ELECTIRCAL SITE NEW WORK PLAN**	**B**	**7/17/23**	**7/25/23**
E-500	**ELECTIRCAL RISER DIAGRAM AND FEEDER SCHEDULES**	**B**	**7/17/23**	**7/25/23**
E-501	**ELECTIRCAL PANEL SCHEDULES**	**B**	**7/17/23**	**7/25/23**
E-502	**ELECTRICAL LIGHTING FIXTURE SCHEDULE**	**B**	**07/25/23**	
E-600	**ELECTRICAL DETAILS -LIGHTING**	**B**	**7/17/23**	
E-601	**ELECTRICAL DETAILS -POWER**	**B**	**7/17/23**	**7/25/23**
E-602	**ELECTRICAL DETAILS -SYSTEMS**	**B**	**7/17/23**	
T-100	**IT LEGEND**	**B**	**7/17/23**	**7/25/23**
T-101	**IT FLOOR PLAN**	**B**	**7/17/23**	**7/25/23**
T-102	**IT REFLECTED CEILING PLAN**	**B**	**7/17/23**	
T-103	**IT DETAIL AND ENLARGED SHEET**	**B**	**7/17/23**	**7/25/23**
T-104	**COMM RISER**	**B**	**7/17/23**	
T-200	**AUDIOVISUAL LEGEND**	**B**	**7/17/23**	
T-201	**AUDIOVISUAL FLOOR PLAN**	**B**	**7/17/23**	
T-202	**AUDIOVISUAL REFLECTED CEILING PLAN**	**B**	**7/17/23**	
T-202	**AUDIOVISUAL ELEVATIONS**	**B**	**7/17/23**	
T-204	**LARGE MEETING ROOM A LINE DIAGRAM**	**B**	**7/17/23**	
T-205	**LARGE MEETING ROOM B LINE DIAGRAM**	**B**	**7/17/23**	
T-206	**AUDIOVISUAL LINE DIAGRAMS**	**B**	**7/17/23**	
T-300	**SECURITY LEGEND**	**B**	**7/17/23**	
T-301	**SECURITY FLOOR PLAN**	**B**	**7/17/23**	
T-302	**SECURITY REFLECTED CEILING PLAN**			

NOTE: Bidders shall copy the form given below on their letterheads and use same in submitting their estimates.

B-05 Exterior Structural Stud Assembly, Metal Framing and Drywall

For Bids Due: _____ To: _____

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____ - _____

Dear Sir:

We, _____ (name of bidder) have received the Bidding Documents on the subject project, including the complete Project Manual and the Drawings enumerated in the contract documents, all dated _____. We have also received Addenda Nos. _____ and have included their provision in our bid. We have examined the Bidding Documents and the premises and submit the following bid to perform all required work:

Base Bid: _____ ($ _____)

SEPARATE PRICE: ADD

For furnishing Performance Bond and Labor and Material Payment Bond. ($_____)

ALTERNATES: ***Insert all Alternates. Be sure they are also listed in the Alternate Section of the Specification.***

Alternate No. B2: ***Operable Partition***

1. Base Bid: As shown on Architectural Drawing, A101 and Structural Drawings at Large Conference room, RM103.
2. Add Alternate: Operable partition and storage closet as shown on Architectural Drawing, A107, Large Conference Room, RM103. Refer to Section 102239 – Folding Panel Partitions for operable partition product information.

Add/Deduct _____ ($ _____)

Alternate No. B3: ***Harrington Room Features***

3. Base Bid: As shown on Architectural Drawing, A101 and MEP Drawings at Harrington Room, RM119.
4. Add Alternate: Casework, thin brick wall finish, and gas fireplace as shown on Architectural Drawing, A107 and MEP Drawings at Harrington Room, MR119. Refer to Section 116700- Miscellaneous Equipment for gas fireplace product information.

Add/Deduct _____ ($ _____)

Alternate No. B4: ***Public Toilet Rooms Ceramic Tile***

1. Base Bid: Ceramic Wall Tile on 'wet wall' only as shown on Architectural Drawing, A105 and A401 at Toilet Rooms, 109, 110, 111, 112, and 122.
2. Add Alternate: Floor to Ceiling Ceramic Wall Tile on all walls at Toilet Rooms, 109, 110, 111, 112, and 122.

Add/Deduct _____ ($ _____)

UNIT PRICE N/A

ADDENDA ACKNOWLEDGMENT

The undersigned acknowledges receipt of the following addenda:

ADDENDUM NUMBER	DATE OF ADDENDUM

The undersigned has checked all of the above figures, and understands that the Construction Manager will not be responsible for any errors or omissions on the part of the undersigned in preparing this Bid.

In submitting this Bid, it is understood that the right is reserved by the Construction Manager to reject any or all bids and waive all technicalities and informalities in connection therewith. It is agreed that this Bid may not be withdrawn for a period of 60 days from time of opening.

The undersigned declares that the person or persons signing this Bid is/are fully authorized to sign on behalf of the firm listed to all the Bid's conditions and provisions thereof.

It is agreed that no persons or company other than the firm listed below or as otherwise indicated has any interest whatsoever in this Bid or the contract that may be entered into as a result of this Bid and that in all respects the Bid is legal and firm, submitted in good faith without collusion or fraud.

It is agreed that the undersigned has complied and/or will comply with all requirements of local, state and national laws, and that no legal requirements have been or will be violated in making or accepting this Bid, in awarding the contract to him and/or in the prosecution of the work required.

COMPLETION DATE

Should (I)/(We) be awarded the contract, (I)/(We) will complete all the work required in accordance with the Project Schedule.

CANCELLATION OF CONTRACT

With the acceptance of this contract, it is to be understood and agreed that should this project be stopped for any valid reason by the **Owner or Construction Manager**, the cost of all work completed to date and any materials which cannot be returned for credit or have been ordered and cannot be canceled will be paid in full. Subcontractor shall be entitled to a fee applied to the cost of the work and materials completed at the time of the notice of cancellation, in accordance with the General Conditions. All materials purchased from the Sub-subcontractor shall become the property of the Construction Manager and shall be delivered to the Jobsite.

Respectfully submitted,

I am/We are an Individual/a Partnership/a Corporation:

By: _____ Trading as: _____
(Individuals/General Partners/Corporate Name)

_____
State of Incorporation

Business Address: _____

_____

_____

Witness: _____ By: _____
Authorized Signature

(Seal)

_____
Title:

_____
Date:

ATTACHMENTS

Delaware Business License
City of Harrington Contractor's License
(Others as Required by Project Manuals)

END OF SECTION

NOTE: Bidders shall copy the form given below on their letterheads and use same in submitting their estimates.

B-13 Paint & VWC

For Bids Due: _____ To: _____

Name of Bidder: _____

Bidder Address: _____

_____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____ - _____

Dear Sir:

We, _____ (name of bidder) have received the Bidding Documents on the subject project, including the complete Project Manual and the Drawings enumerated in the contract documents, all dated _____. We have also received Addenda Nos. _____ and have included their provision in our bid. We have examined the Bidding Documents and the premises and submit the following bid to perform all required work:

Base Bid: _____ ($ _____)

SEPARATE PRICE: ADD

For furnishing Performance Bond and Labor and Material Payment Bond. ($_____)

ALTERNATES: ***Insert all Alternates. Be sure they are also listed in the Alternate Section of the Specification.***

Alternate No. B-1a: ***Horizontal Siding Type, Exterior Wall Type 7B***

1. Base Bid: Painted horizontal cementitious siding with square channel seam installed over ventilated underlayment. Refer to Section 074646.10 – Fiber-Cement Siding for cementitious siding product information.
2. Add Alternate: Horizontal Phenolic Panel 1 with vertical aluminum support rails as shown on Architectural Drawing, sheet A001, Exterior Wall Type 7B. Refer to Section 074400 – Composite Wood Panels for siding product information.

Add/Deduct _____ ($ _____)

Alternate No. B-1b: ***Vertical Siding Type - 'Engineered Wood Siding – Abodo'***

1. Base Bid: Painted vertical cementitious siding with square channel seam installed over ventilated underlayment. Refer to Section 074646.10 – Fiber-Cement Siding for cementitious siding product information.
2. Add Alternate: Vertical Engineered Wood Siding with perforated horizontal aluminum support rails as shown on Architectural Drawing, sheet A001, Exterior Wall Type 7A. Refer to Section 074623 – Wood Siding – Alternate B-1b.

Add/Deduct _____ ($ _____)

Alternate No. B-1c: ***Vertical Siding Type – 'Engineered Wood Siding – Accoya'***

1. Base Bid: Painted vertical cementitious siding with square channel seam installed over ventilated underlayment. Refer to Section 074646.10 – Fiber-Cement Siding for cementitious siding product information.
2. Add Alternate: Vertical Engineered Wood Siding with perforated horizontal aluminum support rails as shown on Architectural Drawing, sheet A001, Exterior Wall Type 7A. Refer to Section 074623 – Wood Siding – Alternate B-1c.

Add/Deduct _____ ($ _____)

Alternate No. B-1d: ***Siding/Soffit Type – 'Phenolic Panel 1'***

1. Base Bid: Painted cementitious siding with square channel seam installed over ventilated underlayment at areas noted for Vertical Phenolic Panel 1 on sheet A001, Exterior Wall Type 7F and Phenolic Panel 1 as shown on Sheet A001, Soffit Type 1. Refer to Section 074646.10 – Fiber-Cement Siding for cementitious siding product information.
3. Add Alternate: Vertical Phenolic Panel 1 with perforated horizontal aluminum support rails as shown on Architectural Drawing, sheet A001, Exterior Wall Type 7F and Phenolic Panel 1 as shown on sheet A001, Soffit Type 1. Refer to Section 074400 – Composite Wood Panels for siding product information.
2. .

Add/Deduct _____ ($ _____)

Alternate No. B2: ***Operable Partition***

3. Base Bid: As shown on Architectural Drawing, A101 and Structural Drawings at Large Conference room, RM103.
4. Add Alternate: Operable partition and storage closet as shown on Architectural Drawing, A107, Large Conference Room, RM103. Refer to Section 102239 – Folding Panel Partitions for operable partition product information.

Add/Deduct _____ ($ _____)

Alternate No. B3: ***Harrington Room Features***

5. Base Bid: As shown on Architectural Drawing, A101 and MEP Drawings at Harrington Room, RM119.
6. Add Alternate: Casework, thin brick wall finish, and gas fireplace as shown on Architectural Drawing, A107 and MEP Drawings at Harrington Room, MR119. Refer to Section 116700- Miscellaneous Equipment for gas fireplace product information.

Add/Deduct _____ ($ _____)

Alternate No. B4: ***Public Toilet Rooms Ceramic Tile***

1. Base Bid: Ceramic Wall Tile on 'wet wall' only as shown on Architectural Drawing, A105 and A401 at Toilet Rooms, 109, 110, 111, 112, and 122.
2. Add Alternate: Floor to Ceiling Ceramic Wall Tile on all walls at Toilet Rooms, 109, 110, 111, 112, and 122.

Add/Deduct _____ ($ _____)

UNIT PRICE N/A

ADDENDA ACKNOWLEDGMENT

The undersigned acknowledges receipt of the following addenda:

ADDENDUM NUMBER	DATE OF ADDENDUM

The undersigned has checked all of the above figures, and understands that the Construction Manager will not be responsible for any errors or omissions on the part of the undersigned in preparing this Bid.

In submitting this Bid, it is understood that the right is reserved by the Construction Manager to reject any or all bids and waive all technicalities and informalities in connection therewith. It is agreed that this Bid may not be withdrawn for a period of 60 days from time of opening.

The undersigned declares that the person or persons signing this Bid is/are fully authorized to sign on behalf of the firm listed to all the Bid's conditions and provisions thereof.

It is agreed that no persons or company other than the firm listed below or as otherwise indicated has any interest whatsoever in this Bid or the contract that may be entered into as a result of this Bid and that in all respects the Bid is legal and firm, submitted in good faith without collusion or fraud.

It is agreed that the undersigned has complied and/or will comply with all requirements of local, state and national laws, and that no legal requirements have been or will be violated in making or accepting this Bid, in awarding the contract to him and/or in the prosecution of the work required.

COMPLETION DATE

Should (I)/(We) be awarded the contract, (I)/(We) will complete all the work required in accordance with the Project Schedule.

CANCELLATION OF CONTRACT

With the acceptance of this contract, it is to be understood and agreed that should this project be stopped for any valid reason by the **Owner or Construction Manager**, the cost of all work completed to date and any materials which cannot be returned for credit or have been ordered and cannot be canceled will be paid in full. Subcontractor shall be entitled to a fee

applied to the cost of the work and materials completed at the time of the notice of cancellation, in accordance with the General Conditions. All materials purchased from the Sub-subcontractor shall become the property of the Construction Manager and shall be delivered to the Jobsite.

Respectfully submitted,

I am/We are an Individual/a Partnership/a Corporation:

By: _____ Trading as: _____
(Individuals/General Partners/Corporate Name)

_____
State of Incorporation

Business Address: _____

_____

_____

Witness: _____ By: _____
Authorized Signature

(Seal)

_____
Title:

_____
Date:

ATTACHMENTS

Delaware Business License
City of Harrington Contractor's License
(Others as Required by Project Manuals)

END OF SECTION

NOTE: Bidders shall copy the form given below on their letterheads and use same in submitting their estimates.

B-23 Electrical

For Bids Due: _____ To: _____

Name of Bidder: _____

Bidder Address: _____

Contact Name: _____ E-Mail Address: _____

Delaware Business License No.: _____ Taxpayer ID No.: _____

(Other License Nos.): _____

Phone No.: ( ) _____ - _____ Fax No.: ( ) _____ - _____

Dear Sir:

We, _____ (name of bidder) have received the Bidding Documents on the subject project, including the complete Project Manual and the Drawings enumerated in the contract documents, all dated _____. We have also received Addenda Nos. _____ and have included their provision in our bid. We have examined the Bidding Documents and the premises and submit the following bid to perform all required work:

Base Bid: _____ ($ _____)

SEPARATE PRICE: ADD

For furnishing Performance Bond and Labor and Material Payment Bond. ($_____)

ALTERNATES: ***Insert all Alternates. Be sure they are also listed in the Alternate Section of the Specification.***

Alternate No. A1: ***Flagpole***

1. Base Bid: No flagpole, flagpole uplighting, or paved area around flagpole.
2. Add Alternate: Provie flagpole, flagpole uplighting, and paved around flagpole as shown on Architectural, Civil, and Electrical Drawings. Refer to Section 107516 FL – Ground Set Flagpoles for flagpole product information.

Add/Deduct _____ ($ _____)

Alternate No. B3: ***Harrington Room Features***

1. Base Bid: As shown on Architectural Drawing, A101 and MEP Drawings at Harrington Room, RM119.
2. Add Alternate: Casework, thin brick wall finish, and gas fireplace as shown on Architectural Drawing, A107 and MEP Drawings at Harrington Room, MR119. Refer to Section 116700-Miscellaneous Equipment for gas fireplace product information.

Add/Deduct _____ ($ _____)

Alternate No. B5: ***Site Sign***

1. Base Bid: No site sign is included. Power and data connections as shown on Electrical and Technology Drawings are included.
2. Add Alternate: Provide site sign as shown on Architectural Drawing A106, Electrical, Technology, and Civil Drawings.

Add/Deduct _____ ($ _____)

Alternate No. B6: ***Fire Pump***

1. Base Bid: Fire Pump as shown on MEP Drawings is not included.
2. Add Alternate: Include fire pump as shown on MED Drawings.

Add/Deduct _____ ($ _____)

UNIT PRICE ***Insert all Unit Prices requested. Be sure they are also listed in the Unit Price Section of the Specification. SAMPLE UNIT PRICES ARE SHOWN BELOW.***

	BULK		TRENCH	
	Add	Deduct	Add	Deduct
1. Price per cubic yard for excavation and disposal of unsatisfactory material and furnishing. Select fill to include placing, compacting, and finishing. This shall include all trucking costs.	_____	_____	_____	_____

NOTE: The difference in price between Add and Deduct in the above Unit Prices shall not exceed fifteen percent (15%).

The above unit prices shall include labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc. to cover the finished work of the several kinds called for. Changes shall be processed in accordance with Article 7 of the General Conditions.

ADDENDA ACKNOWLEDGMENT

The undersigned acknowledges receipt of the following addenda:

ADDENDUM NUMBER	DATE OF ADDENDUM
_____	_____
_____	_____
_____	_____

The undersigned has checked all of the above figures, and understands that the Construction Manager will not be responsible for any errors or omissions on the part of the undersigned in preparing this Bid.

In submitting this Bid, it is understood that the right is reserved by the Construction Manager to reject any or all bids and waive all technicalities and informalities in connection therewith. It is agreed that this Bid may not be withdrawn for a period of 60 days from time of opening.

The undersigned declares that the person or persons signing this Bid is/are fully authorized to sign on behalf of the firm listed to all the Bid's conditions and provisions thereof.

It is agreed that no persons or company other than the firm listed below or as otherwise indicated has any interest whatsoever in this Bid or the contract that may be entered into as a result of this Bid and that in all respects the Bid is legal and firm, submitted in good faith without collusion or fraud.

It is agreed that the undersigned has complied and/or will comply with all requirements of local, state and national laws, and that no legal requirements have been or will be violated in making or accepting this Bid, in awarding the contract to him and/or in the prosecution of the work required.

COMPLETION DATE

Should (I)/(We) be awarded the contract, (I)/(We) will complete all the work required in accordance with the Project Schedule.

CANCELLATION OF CONTRACT

With the acceptance of this contract, it is to be understood and agreed that should this project be stopped for any valid reason by the **Owner or Construction Manager**, the cost of all work completed to date and any materials which cannot be returned for credit or have been ordered and cannot be canceled will be paid in full. Subcontractor shall be entitled to a fee applied to the cost of the work and materials completed at the time of the notice of cancellation, in accordance with the General Conditions. All materials purchased from the Sub-subcontractor shall become the property of the Construction Manager and shall be delivered to the Jobsite.

Respectfully submitted,

I am/We are an Individual/a Partnership/a Corporation:

By: _____ Trading as: _____
(Individuals/General Partners/Corporate Name)

_____
State of Incorporation

Business Address: _____

_____

_____

Witness: _____ By: _____
Authorized Signature

(Seal)

Title: _____

Date: _____

ATTACHMENTS

Delaware Business License
City of Harrington Contractor's License
(Others as Required by Project Manuals)

END OF SECTION

SECTION 072163 - FLUID-APPLIED INSULATIVE COATINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fluid-applied insulative coating applied to structural steel.

B. Related Requirements:

1. Section 051200 "Structural Steel Framing."
2. Section 072100 "Thermal Insulation" for insulation.
3. Section 072726 “Fluid Applied Membrane Air Barrier” for air barrier transition membranes.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 INFORMATIONAL SUBMITTALS

A. Installer Qualifications.

B. Installer Reports: Record of material batch number(s), product identification, and quantities used.

C. Compatibility Test Reports: Report from manufacturer of fluid-applied insulative coating for compatibility with primers and finish topcoats

1.5 QUALITY ASSURANCE

A. Installer: Company certified by manufacturer as trained in installation of products.

B. Manufacturer: Company specializing in manufacturing products in this section with a minimum of two (2) years documented experience in manufacturing insulative technology.

C. Preconstruction Compatibility Testing: Test for compatibility with proposed primers and finish coats provided in Division 05 and 09.

D. Mockups: Build mockups to set standards for materials and execution including finish texture.

1. Install fluid-applied insulative coatings on one structural connection, as identified by Architect.
2. Apply to minimum of two square foot area.

3. Include insulative tape in assembly, if installer intends to include as part of work.
4. Installer shall inspect mockup within one (1) hour of application for variance due to shrinkage, temperature, and humidity. Where shrinkage and cracking are evident, remove affected work, adjust mixture and method of application, and reapply.
5. Apply finish coatings over fluid-applied insulative coatings.
6. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer’s original sealed, undamaged container with label intact.

B. Protect stored materials from physical damage and from deterioration due to moisture, cold, heat, sun, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

1.7 FIELD CONDITIONS

A. Project Environmental Requirements: Substrate and air temperature shall be in accordance with the manufacturers’ requirements.

1. Protect work area from windblown dust and rain. Protect adjacent areas from over spray of material.
2. Provide ventilation in areas to receive work of this section during application and minimum 24 hours after application.

B. Temperature and Humidity Requirements: Maintain air temperature and relative humidity in areas where products will be applied for a time period before during and after application as recommended by manufacturer.

1. Do not apply fluid-applied insulative coating when temperature of substrate and/or surrounding ambient air temperature is below 45° F. Temporary protection and heat shall be maintained at this minimum temperature for 24 hours before, during and 24 hours after material application.
2. Steel substrate temperature shall be a minimum of 5° F (3° C) above the dew point of the surrounding air for a period of 24 hours prior, during the application of the material and 24 hour cure period.
3. Relative humidity of the application area shall not exceed a maximum of 85% 24 hours prior, during and 24 hours after the application of the material. The relative humidity shall not exceed 75% throughout the application and curing of the decorative top coat finish.

PART 2 - PRODUCTS

2.1 PRODUCT REQUIREMENTS

A. Materials Compatibility:

1. Provide shop and field primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
2. Provide products of same manufacturer for each coat in a coating system.

B. Fluid-applied insulative coatings shall be applied at the required thickness specified by the manufacturer in order to mitigate thermal bridging. In no case shall the K-value of the liquid applied thermal break be more than 0.040 W/mK.

2.2 PRODUCTS

A. Source Limitations: Provide products from a single manufacturer from a single source.

B. Fluid-Applied Insulative Coatings: Aerogel insulative coating for application to steel substrates, including primers.

1. Locations: Apply fluid-applied insulative coatings continuously on all surfaces of structural members penetrating building envelope as shown in Detail 7/A510 for the following areas:

a. Intersection of Column line 1 and E.
b. Intersection of Column line 1 and H.
c. Intersection of Column line 21 and E.
d. Intersection of Column line 21 and H.
e. Intersection of Column line 8 and K.
f. Intersection of Column line 8 and N.

C. Manufacturer: Subject to compliance with requirements provide products by one of the following:

1. Cabot Corporation.
2. Tnemec Company, Inc.

D. Primers: Manufacturer's standard water-based cementitious epoxy, zinc-rich aromatic urethane, or mio-zinc-filled aromatic polyurethane primer.

1. Adhesion to Steel: 1,150 psi according to ASTM D 4541.
2. Salt Fog Corrosion: No blistering, cracking, or delamination of film, no more than 1/64" rust creepage at scribe, and no more than 3% rusting on plane at 10,250 hours, according to ASTM B 117.
3. Interior Primers: Passes the California Department of Public Health (CDPH) Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1-2010 (also known as Section 01350).

E. Thermal Insulative Coatings:

1. Abrasion Resistance: 50.2mg maximum loss after 1000 cycles according to ASTM D 4060.
2. Cyclic Salt Fog / UV Exposure: No blistering, cracking, rusting, or delamination after 5000 hours according to ASTM D 5894.
3. Humidity Resistance: No blistering, cracking, rusting, or delamination after 2,000 hours, according to ASTM D4585.
4. Surface Burning Characteristics: Class A according to ASTM E 84.
5. Thermal Conductivity: No greater than 0.0356 W/m-°K or 0.2468 BTU-in/ft2-hr-°F according to ASTM C518.
6. VOC Compliance: Passes the California Department of Public Health (CDPH) Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1-2010 (also known as Section 01350).

2.3 ACCESSORIES

A. Insulative Tape: Manufacturer’s aerogel insulative tape, with thermal conductivity of not more than 0.040 W/mK per layer.

1. Locations: Where fluid-applied insulative coatings will be entirely concealed.
2. Install multiple layers of insulative tape as required to achieve thermal conductivity.

PART 3 - EXECUTION

3.1 PREPARATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements conditions affecting performance of the Work.

B. Surfaces shall follow the manufacturer’s written instructions and be clean, dry and free of oil, grease, loose mill scale, dirt, dust or other foreign substances which would impair bond of the material to the substrate.

C. Application of the fluid-applied insulative coating shall not commence until the installer has examined the substrates and determined the surfaces are acceptable.

D. Verify that substrate and workspace temperature and humidity conditions are in accordance with manufacturers recommendations.

E. Proceed with fluid-applied insulative coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions applicable to substrates.

B. Provide masking, drop cloths, or other suitable coverings to prevent overspray onto surfaces not intended to receive fluid-applied insulative coating.

C. Provide adequately ventilation to remove all airborne dust before application of primer. Prior to the application of any coating material, the blast products, dust and debris shall be removed by vacuuming.

D. Steel Substrates: Remove rust and loose mill scale.

1. Prepare fabrication defects:

a. Correct steel and fabrication defects revealed by surface preparation.
b. Remove weld spatter and slag.
c. Round sharp edges and corners of welds to a smooth contour.
d. Smooth weld undercuts and recesses.
e. Grind down porous welds to pinhole-free metal.
f. Remove weld flux from surface.

2. Ensure surfaces are dry.

3. Remove visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter in accordance with SSPC-SP 6/NACE 3, unless otherwise specified.

E. Abrasive Blast-Cleaned Surfaces: Coat abrasive blast-cleaned surfaces with primer before visible rust forms on surface. Do not leave blast-cleaned surfaces uncoated for more than eight (8) hours.

3.3 APPLICATION

A. Apply fluid-applied insulative coating according to manufacturer's written instructions.

1. Mix and thin coatings, including multi-component materials, in accordance with manufacturer's instructions.
2. Keep containers closed when not in use to avoid contamination.
3. Do not use mixed coatings beyond pot life limits.
4. Use application equipment, tools, pressure settings, and techniques in accordance with manufacturer's instructions.

B. Uniformly apply coatings at spreading rate required to achieve specified DFT.

C. Apply coatings to be free of film characteristics or defects that would adversely affect performance or appearance of coating systems.

D. Apply primer at thickness recommended by manufacturer.

E. Apply thermal insulative coating.

F. Final Dry Film Thickness (DFT) shall be measured with a dry film thickness gauge.

G. Steel deck is not to be sprayed unless otherwise indicated.

3.4 REPAIR

A. Materials and Surfaces Not Scheduled to Be Coated: Repair or replace damaged materials and surfaces not scheduled to be coated.

B. Damaged Coatings: All patching and repair to material damaged shall be performed under this section and paid for by the trade responsible for the damage. Patching shall be performed by applicators certified by the manufacturer and applied in accordance with the manufacturer application instructions.

C. Coating Defects: Repair coatings that exhibit film characteristics or defects that would adversely affect performance or appearance of coating systems in accordance with manufacturer's instructions.

3.5 FIELD QUALITY CONTROL

A. The Owner will engage an independent testing laboratory inspect and verify the application of material.

1. Material inspection and testing shall be performed twenty-four (24) hours after completion of final application coat.
2. Tests results shall be made available to all parties at the completion of each pre-designated area and approval.
3. In-place material not in compliance with the specified thickness requirements shall be corrected prior to final acceptance.

B. The dry film thickness (DFT) of the applied material shall be measured with a non-destructive coating thickness gage after material has completely cured. All measurements shall be documented in writing and furnished to the Owner.

C. Manufacturer's Technical Services: Coordinate with coating manufacturer's technical service department or independent sales representative for current technical data and instructions.

3.6 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty containers, rags, and other discarded materials from Project site.

B. Remove overspray materials from surfaces not required to be thermally protected.

C. Protect surfaces of coating systems from damage during construction.

3.7 MAINTENANCE

A. One-Year Inspection: Construction Manager will set date for one-year inspection of coating systems.

B. Inspection shall be attended by Owner, Contractor, Architect, and manufacturer's representative.

C. Repair deficiencies in coating systems as determined by Architect in accordance with manufacturer’s instructions.

3.8 FLUID APPLIED INSULATION COATING SCHEDULE

A. Steel Members Penetrating Exterior Building Envelope:

1. Fluid Applied Thermal Break System, Water-Based:

    a. Surface Preparation: SSPC-SP6/NACE 3
    b. Prime Coat (Shop or Field): Water-based cementitious epoxy primer, DFT 4.0 to 10.0 mils.
    c. Intermediate Coat (Shop or Field) – Two (2) Coats: Thermal insulative coating, DFT of 40.0 to 50.0 mils per coat, total thickness: 90 to 100 mils.
    d. Finish Coat: Compatible coating by Division 09.

2. Fluid Applied Thermal Break System, Zinc-Rich MCU Primer:

    a. Surface Preparation: SSPC-SP6/NACE 3
    b. Prime Coat (Shop or Field): Zinc-rich aromatic urethane primer, DFT of 2.5 to 3.5 mils.
    c. Intermediate Coat (Shop or Field) – Two (2) Coats: Thermal insulative coating, DFT of 40.0 to 50.0 mils per coat, total thickness: 90 to 100 mils.
    d. Finish Coat: Compatible coating by Division 09.

3. Fluid Applied Thermal Break System, Mio-Zinc MCU Primer:

    a. Surface Preparation: SSPC-SP6/NACE 3
    b. Prime Coat (Shop or Field): Mio-zinc-filled aromatic polyurethane primer, DFT of 2.5 to 3.5 mils.
    c. Intermediate Coat (Shop or Field) – Two (2) Coats: Thermal insulative coating, DFT of 40.0 to 50.0 mils per coat, total thickness: 90 to 100 mils.

d. Finish Coat: Compatible coating by Division 09.

END OF SECTION 072163

SECTION 28 46 00 - DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Section Includes:
   1. Manual fire-alarm boxes.
   2. System smoke detectors.
   3. Air-sampling smoke detectors.
   4. Heat detectors.
   5. Notification appliances.
   6. Addressable interface device.

1.03 DEFINITIONS

A. EMT: Electrical Metallic Tubing.

B. FACP: Fire Alarm Control Panel.

C. HLI: High Level Interface.

D. NICET: National Institute for Certification in Engineering Technologies.

E. PC: Personal computer.

F. VESDA: Very Early Smoke-Detection Apparatus.

1.04 ACTION SUBMITTALS

A. Product Data: For each type of product, including furnished options and accessories.
   1. Include construction details, material descriptions, dimensions, profiles, and finishes.
   2. Include rated capacities, operating characteristics, and electrical characteristics.

B. Shop Drawings: For fire-alarm system.
   1. Comply with recommendations and requirements in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
   2. Include plans, elevations, sections, details, and attachments to other work.
   3. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and locations. Indicate conductor sizes, indicate termination locations and requirements, and distinguish between factory and field wiring.
   4. Detail assembly and support requirements.
   5. Include voltage drop calculations for notification-appliance circuits.
   6. Include battery-size calculations.

7. Include input/output matrix.
8. Include statement from manufacturer that all equipment and components have been tested as a system and meet all requirements in this Specification and in NFPA 72.
9. Include performance parameters and installation details for each detector.
10. Verify that each duct detector is listed for complete range of air velocity, temperature, and humidity possible when air-handling system is operating.
11. Provide program report showing that air-sampling detector pipe layout balances pneumatically within the airflow range of the air-sampling detector.
12. Include plans, sections, and elevations of heating, ventilating, and air-conditioning ducts, drawn to scale; coordinate location of duct smoke detectors and access to them.
    a. Show critical dimensions that relate to placement and support of sampling tubes, detector housing, and remote status and alarm indicators.
    b. Show field wiring required for HVAC unit shutdown on alarm.
    c. Show field wiring and equipment required for HVAC unit shutdown on alarm and override by firefighters' control system.
    d. Show field wiring and equipment required for HVAC unit shutdown on alarm and override by firefighters' smoke-evacuation system.
    e. Locate detectors according to manufacturer's written recommendations.
    f. Show air-sampling detector pipe routing.
13. Include voice/alarm signaling-service equipment rack or console layout, grounding schematic, amplifier power calculation, and single-line connection diagram.
14. Include floor plans to indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits and point-to-point wiring diagrams.

C. General Submittal Requirements:
1. Submittals shall be approved by authorities having jurisdiction prior to submitting them to Architect.
2. Shop Drawings shall be prepared by persons with the following qualifications:
    a. Trained and certified by manufacturer in fire-alarm system design.
    b. NICET-certified, fire-alarm technician; Level IV minimum.
    c. Licensed or certified by authorities having jurisdiction.

D. Delegated-Design Submittal: For notification appliances and smoke and heat detectors, in addition to submittals listed above, indicate compliance with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
1. Drawings showing the location of each notification appliance and smoke and heat detector, ratings of each, and installation details as needed to comply with listing conditions of the device.
2. Design Calculations: Calculate requirements for selecting the spacing and sensitivity of detection, complying with NFPA 72. Calculate spacing and intensities for strobe signals and sound-pressure levels for audible appliances.
3. Indicate audible appliances required to produce square wave signal per NFPA 72.

1.05 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Seismic Qualification Certificates: For fire-alarm control unit, accessories, and components, from manufacturer.
1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.

2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

C. Field quality-control reports.

1.06 Sample Warranty: For special warranty.

1.07 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.
1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following and deliver copies to authorities having jurisdiction:
    a. Comply with the "Records" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
    b. Provide "Fire Alarm and Emergency Communications System Record of Completion Documents" according to the "Completion Documents" Article in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
    c. Complete wiring diagrams showing connections between all devices and equipment. Each conductor shall be numbered at every junction point with indication of origination and termination points.
    d. Riser diagram.
    e. Device addresses.
    f. Air-sampling system sample port locations and modeling program report showing layout meets performance criteria.
    g. Record copy of site-specific software.
    h. Provide "Inspection and Testing Form" according to the "Inspection, Testing and Maintenance" chapter in NFPA 72, and include the following:
        1) Equipment tested.
        2) Frequency of testing of installed components.
        3) Frequency of inspection of installed components.
        4) Requirements and recommendations related to results of maintenance.
        5) Manufacturer's user training manuals.
    i. Manufacturer's required maintenance related to system warranty requirements.
    j. Abbreviated operating instructions for mounting at fire-alarm control unit and each annunciator unit.

B. Software and Firmware Operational Documentation:
1. Software operating and upgrade manuals.
2. Program Software Backup: On magnetic media or compact disk, complete with data files.
3. Device address list.
4. Printout of software application and graphic screens.

1.08 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Lamps for Remote Indicating Lamp Units: Quantity equal to 10 percent of amount installed, but no fewer than one unit.

2. Lamps for Strobe Units: Quantity equal to 10 percent of amount installed, but no fewer than one unit.
3. Smoke Detectors, Fire Detectors, : Quantity equal to 10 percent of amount of each type installed, but no fewer than one unit of each type.
4. Detector Bases: Quantity equal to two percent of amount of each type installed, but no fewer than one unit of each type.
5. Keys and Tools: One extra set for access to locked or tamperproofed components.
6. Audible and Visual Notification Appliances: One of each type installed.
7. Fuses: Two of each type installed in the system. Provide in a box or cabinet with compartments marked with fuse types and sizes.

1.09 QUALITY ASSURANCE

A. Installer Qualifications: Personnel shall be trained and certified by manufacturer for installation of units required for this Project.

B. Installer Qualifications: Installation shall be by personnel certified by NICET as fire-alarm Level II technician.

C. NFPA Certification: Obtain certification according to NFPA 72 by an NRTL (nationally recognized testing laboratory).

D. NFPA Certification: Obtain certification according to NFPA 72 by a UL-listed alarm company.

E. NFPA Certification: Obtain certification according to NFPA 72 in the form of a placard by an FM Global-approved alarm company.

F. NFPA Certification: Obtain certification according to NFPA 72 by .

1.10 PROJECT CONDITIONS

A. Perform a full test of the existing system prior to starting work. Document any equipment or components not functioning as designed.

B. Interruption of Existing Fire-Alarm Service: Do not interrupt fire-alarm service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary guard service according to requirements indicated:
1. Notify [Architect] [Construction Manager] [Owner] no fewer than [seven] days in advance of proposed interruption of fire-alarm service.
2. Do not proceed with interruption of fire-alarm service without [Architect's] [Construction Manager's] [Owner's] written permission.

C. Use of Devices during Construction: Protect devices during construction unless devices are placed in service to protect the facility during construction.

1.11 SEQUENCING AND SCHEDULING

A. Existing Fire-Alarm Equipment: Maintain existing equipment fully operational until new equipment has been tested and accepted. As new equipment is installed, label it "NOT IN SERVICE" until it is accepted. Remove labels from new equipment when put into service, and label existing fire-alarm equipment "NOT IN SERVICE" until removed from the building.

B. Equipment Removal: After acceptance of new fire-alarm system, remove existing disconnected fire-alarm equipment and wiring.

1.12 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace fire-alarm system equipment and components that fail in materials or workmanship within specified warranty period.
   1. Warranty Extent: All equipment and components not covered in the Maintenance Service Agreement.
   2. Warranty Period: [Five] years from date of Substantial Completion.

PART 2 PRODUCTS

2.01 SYSTEM DESCRIPTION

A. Source Limitations for Fire-Alarm System Components: Components shall be compatible with, and operate as an extension of, existing system. Provide system manufacturer's certification that all components provided have been tested as, and will operate as, a system.

B. All components provided shall be listed for use with the selected system.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.02 SYSTEMS OPERATIONAL DESCRIPTION

A. Fire-alarm signal initiation shall be by one or more of the following devices:
   1. Manual stations.
   2. Heat detectors.
   3. Smoke detectors.
   4. Duct smoke detectors.

B. Fire-alarm signal shall initiate the following actions:
   1. Continuously operate alarm notification appliances, including voice evacuation notices.
   2. Identify alarm and specific initiating device at fire-alarm control unit.
   3. Transmit an alarm signal to the remote alarm receiving station.
   4. Unlock electric door locks in designated egress paths.
   5. Release fire and smoke doors held open by magnetic door holders.
   6. Activate voice/alarm communication system.
   7. Switch heating, ventilating, and air-conditioning equipment controls to fire-alarm mode.
   8. Activate smoke-control system (smoke management) at firefighters' smoke-control system panel.
   9. Activate stairwell and elevator-shaft pressurization systems.
   10. Close smoke dampers in air ducts of designated air-conditioning duct systems.
   11. Activate preaction system.
   12. Recall elevators to primary or alternate recall floors.
   13. Activate elevator power shunt trip.
   14. Activate emergency lighting control.
   15. Activate emergency shutoffs for gas and fuel supplies.
   16. Record events in the system memory.

17. Record events by the system printer.
18. Indicate device in alarm on the graphic annunciator.

C. Supervisory signal initiation shall be by one or more of the following devices and actions:
1. Valve supervisory switch.
2. High- or low-air-pressure switch of a dry-pipe or preaction sprinkler system.
3. Alert and Action signals of air-sampling detector system.
4. Elevator shunt-trip supervision.
5. Fire pump running.
6. Fire-pump loss of power.
7. Fire-pump power phase reversal.
8. Independent fire-detection and -suppression systems.
9. User disabling of zones or individual devices.
10. Loss of communication with any panel on the network.

2.03 SYSTEM SMOKE DETECTORS

A. General Requirements for System Smoke Detectors:
1. Comply with UL 268; operating at 24-V dc, nominal.
2. Detectors shall be [four] [two]-wire type.
3. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.
4. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.
5. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
6. Integral Visual-Indicating Light: LED type, indicating detector has operated[and power-on status].
7. Remote Control: Unless otherwise indicated, detectors shall be digital-addressable type, individually monitored at fire-alarm control unit for calibration, sensitivity, and alarm condition[and individually adjustable for sensitivity by fire-alarm control unit].
    a. Rate-of-rise temperature characteristic of combination smoke- and heat-detection units shall be selectable at fire-alarm control unit for 15 or 20 deg F (8 or 11 deg C) per minute.
    b. Fixed-temperature sensing characteristic of combination smoke- and heat-detection units shall be independent of rate-of-rise sensing and shall be settable at fire-alarm control unit to operate at 135 or 155 deg F (57 or 68 deg C).
    c. Multiple levels of detection sensitivity for each sensor.
    d. Sensitivity levels based on time of day.

B. Photoelectric Smoke Detectors:
1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:
    a. Primary status.
    b. Device type.
    c. Present average value.
    d. Present sensitivity selected.
    e. Sensor range (normal, dirty, etc.).

C. Ionization Smoke Detector:
   1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
   2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:
      a. Primary status.
      b. Device type.
      c. Present average value.
      d. Present sensitivity selected.
      e. Sensor range (normal, dirty, etc.).

D. Duct Smoke Detectors: Photoelectric type complying with UL 268A.
   1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
   2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:
      a. Primary status.
      b. Device type.
      c. Present average value.
      d. Present sensitivity selected.
      e. Sensor range (normal, dirty, etc.).
   3. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with the supplied detector for smoke detection in HVAC system ducts.
   4. Each sensor shall have multiple levels of detection sensitivity.
   5. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.
   6. Relay Fan Shutdown: Fully programmable relay rated to interrupt fan motor-control circuit.

2.04 MULTICRITERIA DETECTORS

A. Mounting: [Adapter plate for outlet box mounting] [Twist-lock base interchangeable with smoke-detector bases].

B. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.

C. Automatically adjusts its sensitivity by means of drift compensation and smoothing algorithms. The detector shall send trouble alarm if it is incapable of compensating for existing conditions.

D. Test button tests all sensors in the detector.

E. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:
   1. Primary status.
   2. Device type.
   3. Present sensitivity selected.
   4. Sensor range (normal, dirty, etc.).

F. Sensors: The detector shall be comprised of four sensing elements including a smoke sensor, a carbon monoxide sensor, an infrared sensor, and a heat sensor.

1. Smoke sensor shall be photoelectric type as described in "System Smoke Detectors" Article.
2. Carbon monoxide sensor shall be as described in "Carbon Monoxide Detectors" Article.
3. Heat sensor shall be as described in "Heat Detectors" Article.
4. Each sensor shall be separately listed according to requirements for its detector type.

2.05 HEAT DETECTORS

A. General Requirements for Heat Detectors: Comply with UL 521.
   1. Temperature sensors shall test for and communicate the sensitivity range of the device.

B. Heat Detector, Combination Type: Actuated by either a fixed temperature of [135 deg F (57 deg C)] or a rate of rise that exceeds [15 deg F (8 deg C)] per minute unless otherwise indicated.
   1. Mounting: [Adapter plate for outlet box mounting] [Twist-lock base interchangeable with smoke-detector bases].
   2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.

C. Heat Detector, Fixed-Temperature Type: Actuated by temperature that exceeds a fixed temperature of [190 deg F (88 deg C)] .
   1. Mounting: [Adapter plate for outlet box mounting] [Twist-lock base interchangeable with smoke-detector bases].
   2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.

D. Continuous Linear Heat-Detector System:
   1. Detector Cable: Rated detection temperature [155 deg F (68 deg C)] . Listed for "regular" service and a standard environment. Cable includes two steel actuator wires twisted together with spring pressure, wrapped with protective tape, and finished with PVC outer sheath. Each actuator wire is insulated with heat-sensitive material that reacts with heat to allow the cable twist pressure to short circuit wires at the location of elevated temperature.
   2. Control Unit: Two-zone or multizone unit as indicated. Provide same system power supply, supervision, and alarm features as specified for fire-alarm control unit.
   3. Signals to Fire-Alarm Control Unit: Any type of local system trouble shall be reported to fire-alarm control unit as a composite "trouble" signal. Alarms on each detection zone shall be individually reported to central fire-alarm control unit as separately identified zones.
   4. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.

2.06 NOTIFICATION APPLIANCES

A. General Requirements for Notification Appliances: Individually addressed, connected to a signaling-line circuit, equipped for mounting as indicated, and with screw terminals for system connections.

B. General Requirements for Notification Appliances: Connected to notification-appliance signal circuits, zoned as indicated, equipped for mounting as indicated, and with screw terminals for system connections.

1. Combination Devices: Factory-integrated audible and visible devices in a single-mounting assembly, equipped for mounting as indicated, and with screw terminals for system connections.

C. Chimes, Low-Level Output: Vibrating type, 75-dBA minimum rated output.

D. Chimes, High-Level Output: Vibrating type, 81-dBA minimum rated output.

E. Horns: Electric-vibrating-polarized type, 24-V dc; with provision for housing the operating mechanism behind a grille. Comply with UL 464. Horns shall produce a sound-pressure level of 90 dBA, measured 10 feet (3 m) from the horn, using the coded signal prescribed in UL 464 test protocol.

F. Visible Notification Appliances: Xenon strobe lights complying with UL 1971, with clear or nominal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch- (25-mm-) high letters on the lens.
1. Rated Light Output:
   a. [15] [30] [75] [110] [177] cd.
   b. 15/30/75/110 cd, selectable in the field.
2. Mounting: Wall mounted unless otherwise indicated.
3. For units with guards to prevent physical damage, light output ratings shall be determined with guards in place.
4. Flashing shall be in a temporal pattern, synchronized with other units.
5. Strobe Leads: Factory connected to screw terminals.
6. Mounting Faceplate: Factory finished, [red] [white].

G. Voice/Tone Notification Appliances:
1. Comply with UL 1480.
2. Speakers for Voice Notification: Locate speakers for voice notification to provide the intelligibility requirements of the "Notification Appliances" and "Emergency Communications Systems" chapters in NFPA 72.
3. High-Range Units: Rated 2 to 15 W.
4. Low-Range Units: Rated 1 to 2 W.
5. Mounting: [Flush] [semirecessed] [or] [surface mounted and bidirectional].
6. Matching Transformers: Tap range matched to acoustical environment of speaker location.

H. Exit Marking Audible Notification Appliance:
1. Exit marking audible notification appliances shall meet the audibility requirements in NFPA 72.
2. Provide exit marking audible notification appliances at the entrance to all building exits.
3. Provide exit marking audible notification appliances at the entrance to areas of refuge with audible signals distinct from those used for building exit marking.

2.07 ADDRESSABLE INTERFACE DEVICE

A. General:
1. Include address-setting means on the module.
2. Store an internal identifying code for control panel use to identify the module type.
3. Listed for controlling HVAC fan motor controllers.

B. Monitor Module: Microelectronic module providing a system address for alarm-initiating devices for wired applications with normally open contacts.

C. Integral Relay: Capable of providing a direct signal [to elevator controller to initiate elevator recall] [to circuit-breaker shunt trip for power shutdown] .
   1. Allow the control panel to switch the relay contacts on command.
   2. Have a minimum of two normally open and two normally closed contacts available for field wiring.

D. Control Module:
   1. Operate notification devices.
   2. Operate solenoids for use in sprinkler service.
   3. .

2.08 DEVICE GUARDS

A. Description: Welded wire mesh of size and shape for the manual station, smoke detector, gong, or other device requiring protection.
   1. Factory fabricated and furnished by device manufacturer.
   2. Finish: Paint of color to match the protected device.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine areas and conditions for compliance with requirements for ventilation, temperature, humidity, and other conditions affecting performance of the Work.
   1. Verify that manufacturer's written instructions for environmental conditions have been permanently established in spaces where equipment and wiring are installed, before installation begins.

B. Examine roughing-in for electrical connections to verify actual locations of connections before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 EQUIPMENT INSTALLATION

A. Comply with NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire-alarm equipment. Install all electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."
   1. Devices placed in service before all other trades have completed cleanup shall be replaced.
   2. Devices installed but not yet placed in service shall be protected from construction dust, debris, dirt, moisture, and damage according to manufacturer's written storage instructions.

B. Connecting to Existing Equipment: Verify that existing fire-alarm system is operational before making changes or connections.
   1. Connect new equipment to existing control panel in existing part of the building.
   2. Connect new equipment to existing monitoring equipment at the supervising station.
   3. Expand, modify, and supplement existing equipment as necessary to extend existing control & monitoring functions to the new points. New components shall be capable of merging with existing configuration without degrading the performance of either system.

C. Smoke- or Heat-Detector Spacing:
   1. Comply with the "Smoke-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for smoke-detector spacing.
   2. Comply with the "Heat-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for heat-detector spacing.
   3. Smooth ceiling spacing shall not exceed [30 feet (9 m)] .
   4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas shall be determined according to Annex A [or Annex B]in NFPA 72.
   5. HVAC: Locate detectors not closer than [36 inches (910 mm)] [60 inches (1520 mm)] from air-supply diffuser or return-air opening.
   6. Lighting Fixtures: Locate detectors not closer than 12 inches (300 mm) from any part of a lighting fixture and not directly above pendant mounted or indirect lighting.

D. Install a cover on each smoke detector that is not placed in service during construction. Cover shall remain in place except during system testing. Remove cover prior to system turnover.

E. Duct Smoke Detectors: Comply with NFPA 72 and NFPA 90A. Install sampling tubes so they extend the full width of duct. Tubes more than 36 inches (9100 mm) long shall be supported at both ends.
   1. Do not install smoke detector in duct smoke-detector housing during construction. Install detector only during system testing and prior to system turnover.

F. Elevator Shafts: Coordinate temperature rating and location with sprinkler rating and location. Do not install smoke detectors in sprinklered elevator shafts.

G. Remote Status and Alarm Indicators: Install in a visible location near each smoke detector, sprinkler water-flow switch, and valve-tamper switch that is not readily visible from normal viewing position.

H. Audible Alarm-Indicating Devices: Install not less than 6 inches (150 mm) below the ceiling. Install bells and horns on flush-mounted back boxes with the device-operating mechanism concealed behind a grille. Install all devices at the same height unless otherwise indicated.

I. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches (150 mm) below the ceiling. Install all devices at the same height unless otherwise indicated.

J. Device Location-Indicating Lights: Locate in public space near the device they monitor.

3.03 PATHWAYS

A. Pathways above recessed ceilings and in nonaccessible locations may be routed exposed.
   1. Exposed pathways located less than 96 inches (2440 mm) above the floor shall be installed in EMT.

B. Pathways shall be installed in EMT.

C. Exposed EMT shall be painted red enamel.

3.04 CONNECTIONS

A. For fire-protection systems related to doors in fire-rated walls and partitions and to doors in smoke partitions, comply with requirements in Section 087100 "Door Hardware." Connect

hardware and devices to fire-alarm system.

1. Verify that hardware and devices are listed for use with installed fire-alarm system before making connections.

B. Make addressable connections with a supervised interface device to the following devices and systems. Install the interface device less than 36 inches (910 mm) from the device controlled. Make an addressable confirmation connection when such feedback is available at the device or system being controlled.

1. Smoke dampers in air ducts of designated HVAC duct systems.
2. Magnetically held-open doors.
3. Electronically locked doors and access gates.
4. Alarm-initiating connection to activate emergency lighting control.
5. Alarm-initiating connection to activate emergency shutoffs for gas and fuel supplies.

3.05 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

B. Install framed instructions in a location visible from fire-alarm control unit.

3.06 GROUNDING

A. Ground fire-alarm control unit and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit.

B. Ground shielded cables at the control panel location only. Insulate shield at device location.

3.07 FIELD QUALITY CONTROL

A. Field tests shall be witnessed by Architect.

B. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.

C. Perform the following tests and inspections with the assistance of a factory-authorized service representative:

1. Visual Inspection: Conduct visual inspection prior to testing.
    a. Inspection shall be based on completed record Drawings and system documentation that is required by the "Completion Documents, Preparation" table in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
    b. Comply with the "Visual Inspection Frequencies" table in the "Inspection" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components.
2. System Testing: Comply with the "Test Methods" table in the "Testing" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4.
4. Test audible appliances for the private operating mode according to manufacturer's written instructions.

5. Test visible appliances for the public operating mode according to manufacturer's written instructions.
6. Factory-authorized service representative shall prepare the "Fire Alarm System Record of Completion" in the "Documentation" section of the "Fundamentals" chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

D. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.

E. Fire-alarm system will be considered defective if it does not pass tests and inspections.

F. Prepare test and inspection reports.

G. Maintenance Test and Inspection: Perform tests and inspections listed for weekly, monthly, quarterly, and semiannual periods. Use forms developed for initial tests and inspections.

H. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.

3.08 MAINTENANCE SERVICE

A. Initial Maintenance Service: Beginning at Substantial Completion, maintenance service shall include 12 months' full maintenance by skilled employees of manufacturer's designated service organization. Include preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper operation. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.
1. Include visual inspections according to the "Visual Inspection Frequencies" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
2. Perform tests in the "Test Methods" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
3. Perform tests per the "Testing Frequencies" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

3.09 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

END OF SECTION 28 46 00

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Harrington Public Library

Bid Pack B RFI Log
As of 7/31/2023

RFI #	Date Received	Category	Drawing #	Contractor	Question	Response By	Response	Addendum No.
1	7/14/2023	Plumbing	P300		FD-1 FD-2 - Specify trap primer, however basis of design does not indicate trap primer, we intend to price trap guards	CMTA	The basis of design indicates trap primer or trap guard; the trap guard alternate is acceptable.	3
2	7/18/2023	Flooring		Connolly	After looking at the drawings, finish schedule shows tile on all walls of the bathrooms and the detail just shows the wet wall. Which is correct? If just wet walls, would the other walls receive ceramic base?	BMG	See Specification 012300 for Add Alternate B-4 narrative. Note, RM 135 should also be included within this narrative. For Base Bid, CWT wall base will be CWT-1. Updated specification and drawings will be included in forthcoming addendum.	3
3	7/18/2023	Flooring		Connolly	There is a BK2 shown on the details for thin brick but no selection, is there a selection?	BMG	Refer to Section 042000/2.6 for product information.	3
4	7/18/2023	Flooring		Connolly	Is there a selection for the type of transition from carpet tile to concrete?	BMG	Johnsonite Slim Line Transition or similar product by another manufacturer.	3
5	7/19/2023	Concrete		JT Hoover	I received the update that specs have been uploaded. There was nothing for cast in place concrete so we will proceed with the notes on the structural plans.	EDiS	Will be sent out with Add No 1	1
6	7/19/2023	Concrete		JT Hoover	Is it acceptable to bid poured walls in place of the CMU block shown at the foundations?	BIA	Alternative designs can be discussed with selected bidder, but due to bidding schedule, bids shall be based on current design.	3
7	7/19/2023	Concrete		JT Hoover	Would the design team be amenable to a full height wall (to top of slab) with 4" wide slab ledge in place off the turned down edge as shown? (see my quick drawing below). Otherwise we would omit the insulation not wanting that 8" above the wall to be free and susceptible to damage by others. We would only want to include the insulation in our scope from top of footing to top of wall.	BIA	Alternative designs can be discussed with selected bidder, but due to bidding schedule, bids shall be based on current design.	3
8	7/19/2023	Concrete		JT Hoover	Can you figure pad footings with piers in place of the sonotubes? There are areas where these are required quite close to the perimeter foundation. With our aluminum form system, the would have to be incorporated together.	BIA	Reference Addendum 3 for revised pier design.	3
9	7/19/2023	Concrete		JT Hoover	At the wall sections with the grouted cavity and brick veneer, we can offer a thicker wall base at these locations and form a brick ledge on the exterior side of the wall. Otherwise we would have to omit everything outside of our insulation.	BMG	Alternative designs can be discussed with selected bidder, but due to bidding schedule, bids shall be based on current design.	3
10	7/20/2023	IT		Ctrl-Alt-Repair	On the IT side are we providing the wireless access points (WAP's) / managed switches / rack etc, or does the owner provide those materials and we just run the cabling?	CMTA	Meeting to be setup with Deleware Dept of Libraries to ascertain responsibilty matrix on active equipment. Rack will be provided by contractor, see specs. **EDiS to provide additional clarifications in Addendum 4.**	
11	7/20/2023	Metal Framing & Drywall		Brandywine Contractors	Is a bid bond required?	EDiS	Bid Bond not required	2
12	7/20/2023	Metal Framing & Drywall		Brandywine Contractors	Bid form lists City of Harrington Contractors License as an attachment, Is this a requirement for bid submission or only if awarded?	EDiS	Only if awarded	2
13	7/20/2023	Metal Framing & Drywall		Brandywine Contractors	Will a project schedule be published?	EDiS	Yes, project schedule will be published as part of Addendum 2	2
14	7/21/2023	Caulking		J&B Caulkers	Contract B-15 owns caulking of the bottom of the interior aluminum frames to vinyl flooring. Which contract owns caulking the remaining three sides of the interior aluminum frames?	EDiS	Caulking of the remaining three sides of the interior aluminum frames are under the glass and glazing contract.	2
15	7/21/2023	Caulking		J&B Caulkers	Will caulking at the bottom of the hm frames to vinyl flooring be required and if so by which contract?	EDiS	There are no vinyl floors, only sealed concrete and polished concrete floors. Contractor will be responsible for HM frames at these locations. Scopes of work will be updated to reflect this. This will be by the caulking contract.	2
16	7/21/2023	Flooring		Creative Flooring	Specific scope of work for contract B-14 – Flooring shows sealed concrete by others, but polished concrete is included. Can polished concrete be separated out?	EDiS	Polished concrete will be included as part of the flooring contract, however will be included as an Owner's Allowance. The dollar value to be decided and included as a future addendum.	2
17	7/21/2023	Flooring		Creative Flooring	The sample insurance certificate shows Pollution Liability and Professional Liability requirements. We do not carry these coverages as they typically do not pertain to floor covering installation. Can this requirement be waived for this contract?	EDiS	EDiS has provided a matrix as part of Addendum 2 for which contracts will require pollution insurance and professional liability insurance.	2
18	7/21/2023	Steel		RC Fab	Looking at the scope items for the B-4 Structural Steel & Miscellaneous Metals contract…. Can you confirm that the Scope Item #17, Provide metal-web wood joists, is correct?	EDiS	See area between column lines A and D and 3 and 10 where it specifies Red-H Wood Truss.	2
19	7/24/2023	Mechanical		Diamond Mechanical	For duct work on this job are you looking for snaplock or spiral duct?	CMTA	Concealed branch ductwork may be either snaplock or spiral. All exposed ductwork in occupied areas shall be dual wall spiral as indicated in the documents.	3
20	7/18/2023	General		Enterprise Masonry	Do prevailing wage rates apply, or is this funded by the Town of Harrington? ITB says "where prevailing wages apply."	EDiS	This project is prevailing wage.	2
21	7/20/2023	Electrical		Nickle	Specifications state that all circuits should be run in conduit. Is armored cable acceptable in concealed areas?	CMTA	Armored cable shall be allowed in concealed areas.	3
22	7/20/2023	Electrical	E-300	Nickle	Note F on Drawing E-300 states that Fire Alarm wiring must be FA MC in concealed areas. Is FPLP acceptable in concealed areas?	CMTA	FPLP is not acceptable.	3
23	7/20/2023	Electrical		Nickle	It appears that the Mechanical Contractor provides the Ceiling Fans (HVLS-1, HVLS-2, HVLS-3, and HVLS-4). Does the Electrical Contractor furnish and install fan controls or install only? Please provide part number or details on control.	EDiS	Mechanical contractor to furnish fans, electrical contractor installs fan and pathways for controls. Mechanical contractor to install controls.	3

24	7/20/2023	Electrical		Nickle	Who is to furnish cable tray?	EDiS	Structured cabling contractor is furnishing and installing cable tray.	2
25	7/20/2023	Electrical		Nickle	No provisions for a future site sign are shown on the panel schedules, site drawing, or IT drawings. Please provide clarification.	CMTA	Conduit shall be provided to sign location under base bid. Wiring to be provided as alternate. See drawing addendum.	3
26	7/20/2023	Electrical		Nickle	Scope item 35 refers to millwork and casework lighting. The Fry Reglet part number (DRMZ) on the Architectural details appears to be the molding/casework itself. Are we to furnish and install Fry Reglet lighting? Install only? Please provide part number and clarification.	CMTA	Light Fixture schedule revised with part number. See Addendum 3.	3
27	7/18/2023	Masonry		Enterprise Masonry	do prevailing wage rates apply, or is this funded by the Town of Harrington? ITB says “where prevailing wages apply.	EDiS	Prevailing wage rates do apply.	2
28	7/24/2023	Fire Protection		Oliver	It states to provide a full fire alarm system, but there are no specs given what kind of system they want or any other specific details. Please provide	CMTA	Specification for Fire Alarm will be inclued in Addendum 3.	3
29	7/24/2023	Electrical		Nickle	Does Bid Pack A or Bid Pack B own the underground conduit the primary electrical service, site signage, and telecom? The Civil drawings from Bid Pack A show these items “for reference only”, but the Electrical Bid Pack B drawings do not show them as our responsibility.	CMTA	THIS RESONSE HAS BEEN UPDATED FROM ADDENDUM 2. Bid Package B under the electrical contract. Delaware COOP owns from pole to transformer. Electrical contractor owns from transformer to building, underground telecom conduits, and electrical service for site signage. CMTA comments: •Primary Wire provided by UTILITY •Service transformer provided by UTILITY •Service transformer pad provided by CUSTOMER •Secondary conduit provided by CUSTOMER •Secondary wire to CT + Meter provided by UTILITY •CT + Meter pan provided by CUSTOMER oCT + Meter on line side of service disconnect oOn building exterior next to service transformer •Conduit + Wire downstream of meter provided by CUSTOMER •Service Disconnect provided by CUSTOMER oOn building exterior next to service transformer	3
30	7/24/2023	Electrical		Nickle	Please provide specifications for the fire alarm system.	CMTA	Specification for Fire Alarm will be included in Addendum 3.	3
31	7/24/2023	Steel		R.C. Fabricators (RedBuilt)	Please provide Net thickness of the decking on the trusses	BIA	Wood decking is 3" (2 1/2" actual)	3
32	7/24/2023	Steel		R.C. Fabricators (RedBuilt)	Please provide Attachment of the C5 channel to our trusses. RedBuilt has details in our manual (attached), but the detail on sheet S202 will not work as the 5/8” is too large to drill in our truss chords	BIA	Reduce bolts to 3/8" dia spaced at 10"	3
33	7/24/2023	Steel		R.C. Fabricators (RedBuilt)	Please provide live and dead loads along with any mech loading that would be in addition.	BIA	LL: 150 plf / DL: 100 plf MECH/Lighting: Add'l 50 plf	3
34	7/24/2023	Metal Framing & Drywall		Brandywine Contractors	B-5 metal framing scope mentions expansion control. I do not see any expansion joint within the interior of the building that would require expansion joint covers. Please confirm.	BMG	No expansion joint covers are required.	3
35	7/24/2023			Brandywine Contractors	Who is responsible for section 113013 residential appliances as I do not see this listed in anyone’s package?	EDiS	Furnishing of residential appliances will be direct purchased by EDiS.	2
37	7/24/2023	Carpentry		Brandywine Contractors	B-16 Specialties is to furnish specified items to B-6 Carpentry for installation however nothing is mentioned for 101463 Electronic Message System. Should we assume B-16 Specialties would supply and install this item?	EDiS	Correct, Contract B-16 would supply and install this item.	3
39	7/24/2023	Carpentry		Brandywine Contractors	B-6 Carpentry scope of work has B-6 to install and B-16 to furnish projection screens however there are no specifications on projection screens	BMG	Refer to the Audovisual Equipment Schedule on drawing T-200.	3
40	7/24/2023	Carpentry		Brandywine Contractors	B-6 Carpentry scope of work mentions wall and corner guards however we see neither on the project and there are no specifications for this material	BMG	No corner guards are required. However, see Sections 092900/2.6/A, 092900/2.6/B, and 092900/3.6/C regarding special corner and edge trim requirements.	3
41	7/24/2023			Brandywine Contractors	Is fencing type 1 & 1A to be a custom built application or what is the architects intent? Please clarify what is meant by 1 x 6 vertically engineered wood.	BMG	Fence Types 1 and 1A are custom built. For information regarding the siding material, see Specification 012300 for ADD Alternates B-1B and B-1C narratives and Specifications 074623 Alternate B-1b and 074623 Alternate B-1c for Base Bid and Alternate materials.	3
42	7/24/2023	Steel		RC Fabricators	Please confirm that Contract # B-4 will provide the steel for the operable partition in base bid, even through it is and add alternate for Contract #B-17.	EDiS	Confirmed.	3
43	7/24/2023	Steel		RC Fabricators	Please provide Kicker connection and loading for angle kicker at each hanger for operable partition, Detail 4/S303.	BIA	Connection and kicker load needs to be coordinated with selected partition info	3
44	7/24/2023	Steel		RC Fabricators	Please provide additional details for 1” rod called out on S103.	BIA	Reference Addendum 3 S203 for rod details	3
45	7/24/2023	Steel		RC Fabricators	Can design team provide a drawing locating Exposed Structural steel	BMG	Exposed Areas can be determined by reviewing the reflected ceiling plans, interior elevations, and building sections.	3
46	7/24/2023	Steel		RC Fabricators	Please provide structural details for roof screen.	BIA	Reference Addendum 3 12/S301 for HSS support framing @ roof screens	3
46.1	7/24/2023	Steel		RC Fabricators	Please confirm which contract the roof screen is in.	EDiS	Roof screen is in B-08 - Exterior and Interior Panels. Structural and Misc Steel Contract is required to provide vertical supports detailed on 12/S301.	3

47	7/25/2023	Masonry		D. Gingerich Concrete & Masonry Inc.	Would Hohmann & Barnard X-Seal anchors be acceptable in lieu of the Hohmann & Barnard HB-213?	BMG	The HB-213 is specified since it requires significantly shorter fasteners to reach the stud framing. Additionally, the possibility of the installer missing the stud framing is reduced when using the HB-213 since it is installed before the rigid insulation is applied.	3
48	7/25/2023	Concrete		Cavan	Checking on the scope of work Contract NO B-2 – Concrete, note #2. Layout. Will there be any control points provided or do we have to provide those ourselves?	EDiS	"The Construction Manager will establish a bench mark and base line control from which structures and grades shall be laid out by Subcontractors as designated in this section. The total extent of this layout is shown on the site drawings. One bench elevation shall be provided."	2
49	7/25/2023	Flooring		Creative Flooring	Please clarify correct product for CPT2 – Finish Legend shows Color Anchor, however specifications state Ruffian I	BMG	Specification is correct. CPT-3 will be renamed to CPT-2 in Finish Schedule. Updated drawing will be included in forthcoming Addendum.	3
50	7/25/2023	Roofing		Quality Exteriors Inc.	Please submit the attached Fabral Power Seam data for a Metal Roof Panel substitution request. https://www.dropbox.com/scl/fi/0wndfg2hmjle2ad012npr/Quality-Exteriors-Substitution-RFI.pdf?rlkey=jd1tyaj9mxiecigv155q3pn5s&dl=0	BMG	Substitution is acceptable.	3
51	7/25/2023	Plumbing and Mechanical		Zimmer	would you kindly consider combining those two contracts (plumbing and mechanical) into one cumulative package to allow those of us who so choose to bid a combination of both and optimize our fixed costs?	EDiS	If the bids come back where it makes sense to combine the contracts, we will do so, however want to allow bidders who may only do one or the other bid on this project as well. In this case, please provide separate bids for both, however, if warranted, offer a voluntary deduct alternate to perform both scopes of work.	3
52	7/26/2023	Window Shades		Goodwin Brothers	The RCP (A104) indicates RS-3 (motorized shades) only at the upper windows of Large Conference 103; however, the electrical drawings (E-100) indicate motorized shades at all the locations indicated on the RCP (A104) with RS-1, RS-2, & RS-3. Per the specifications, RS-1 & RS-2 are to be manual shades. Could you please confirm that the only motorized shades are RS-3 which are to be located at the upper windows of Large Conference 103?	CMTA	Confirmed that only RS-3 are to be powered motorized shades. All other locations shall be manual shades. Updated drawings will be included in forthcoming addendum.	3
53	7/26/2023			TJLane	In the spec book secion 123213-3 Part 2-Products it states there are a list of approved manufactures. Could this be waived and allow for us to fabricate ourselves?	BMG	Yes, it is acceptable to shop fabricate.	3
54	7/26/2023	Flooring		Connolly	After looking at the drawings, finish schedule shows tile on all walls of the bathrooms and the detail just shows the wet wall. Which is correct? If just wet walls, would the other walls receive ceramic base?	BMG	See question 2 above	3
56	7/26/2023	Flooring		Connolly	Do we have to carry the polished concrete?	EDiS	Our plan for this is to work with our estimating department to carry an Owner's Allowance for this scope of work which we will have in the flooring contract. This will allow us to still to have the monetary coverage, however will not require the flooring contractors to bid out the polished concrete.	3
57	7/26/2023	Mechanical		DegliObizzi	Is it acceptable to install PVC pipe and fittings for the condensate pipe in the building and on the roof.	CMTA	Yes.	3
58	7/26/2023	Mechanical		DegliObizzi	Is PVC pipe acceptable to use for the underground sanitary and storm pipe?	CMTA	No, the project does not call for PVC piping below grade for sanitary or storm systems.	3
59	7/26/2023	Mechanical		DegliObizzi	Is PVC pipe acceptable to use for the above ground sanitary and storm pipe?	CMTA	No, the project does not call for PVC piping below grade for sanitary or storm systems.	3
60	7/26/2023	Plumbing		DegliObizzi	BFP-1 is on the plumbing schedule, should this be carried by the fire protection contractor?	EDiS	See scope of work for plumbing and fire protection. BFP for fire service is by fire protection contractor.	3
61	7/26/2023	Plumbing		DegliObizzi	Please clarify the plumbing portion of Alternate B3. The base bid drawings show the 3/4" glas to the fire place. Should that be broken out and provided as alternate B3? Who provides the gas fireplace?	CMTA	3/4" gas line shall be part of the alternate. See Bid Addendum 3.	3
62	7/26/2023	Plumbing		DegliObizzi	Is this project considered Kent County or Sussex County?	EDiS	Kent County	3
63	7/26/2023	Plumbing		DegliObizzi	Is there a 2 year warranty on this project?	EDiS	Yes, 2 year warranty	3
64	7/26/2023	Painting		EDiS	Are LEED submittals required for this project?	BMG	No	3
65	7/26/2023	Painting		Jamestown	Can we get some clarification on the substrates for the exterior of the building? - Vertical Engineered Wood Siding is noted on several elevations. Is this the primed Fiber Cement Siding listed in the specs?	BMG	See Specification 012300 for ADD Alternates B-1A, B-1B, and B-1C narratives and Specifications 074646.10, 074623 Alternate B-1b, and 074623 Alternate B-1c for Base Bid and Alternate materials.	3
66	7/26/2023	Painting		Jamestown	Please confirm that the 'Painted Aluminum Frames' noted in our scope and drawings are in fact painted in the field by the painting contractor. Spec section 084113 notes the finish to be 'High-Performance Organic'. It's not typical to field paint aluminum.	BMG	Shop painting is acceptable since the Painted Aluminum Frames are designed to be installed as a single unit.	3
67	7/26/2023	Painting		Jamestown	Are the Alternates listed on our bid form for contract B-13 correct and the only alternates we are to price? I'm not sure the Harrington Room Features involves painting? Also it seems that others listed in spec section 012300 Alternates do involve painting…Examples B-1a, B-1b, & B-1c. The base bid is painted siding. The add alternate is for either phenolic panels or engineered wood siding whichif I'm not mistaken are both factory finished. Wouldn't there be a deduct alternate for paint?	EDiS	Harrington Room and exterior panels would be a deduct alternate to the painting scope because other finishes would take place in lieu of painting.	3
68	7/26/2023	Painting		Jamestown	Gas piping is listed to be painted in our scope. Where is this shown?	EDiS	Please reference plumbing drawings.	3
69	7/26/2023			Brandywine Contractors	What is the dollar amount of coverage required for Professional Liability and Pollution Insurance?	EDiS	See sample insurance form.	3
70	7/26/2023	Mechanical		DegliObizzi	How much space will be needed to heat during the project? How many heaters should be installed? Can the temp heat be an allowance cost for Contract B-22?	EDiS	Temporary heaters shall be included as part of the base-bid. Refer to specification section 015123. Bidders should work with vendor(s) and assume all 15,000 SF of the building will need to be heated. Fuel for temporary heaters will be paid for by the Construction Manager under the allocation set forth in Contract B-22.	3

71	7/26/2023	Mechanical		DegliObizzi	The pip leaving the mechanical room is labeled CWS/R, should this be dual temp piping? If so, please provide a dual temp pipe spec.	CMTA	CWS/R is condenser water supply/return. There is no dual temp piping specified.	3
72	7/26/2023	Security Cables		Assurance Media	As the Delaware Div of Libraries is referenced and the project is also stated to be a Delaware Prevailing Wage Rate project. Is this new Harrington Library to be a State of Delaware owned or managed facility?	BMG	The library is owned and managed by the City of Harrington.	3
73	7/26/2023	Security Cables		Assurance Media	The State of Delaware requires that their owned or managed facilities have their Structured Communications Cabling installed by an Approved Cabling Vendor with the State of Delaware Cabling Contract GSS21441-DATA_CBL and the System installed be compliant with the State of Delaware DTI Structured Cabling System Standards and Specifications for State Managed Facilities. Do these State of Delaware requirements apply to this project? The cabling Standard referenced can be found at: https://webfiles.dti.delaware.gov/pdfs/pp/CablingAndWiringStandard.pdf	CMTA	This is a question for Delaware Division of Libraries or the Owner	3
74	7/26/2023	Security Cables		Assurance Media	Is the owner or others providing the WAPS, switches, and network electronics? Drawings indicate WAPs are OFCI. If products exist in #14 of the Scope Summary that this contractor is to supply, please provide specific quantity, manufacturer, and model number for each component.	CMTA	Meeting to be setup with Delaware Dept of Libraries to ascertain responsibilty matrix on active equipment. Rack will be provided by contractor, see specs. **EDiS to provide additional clarifications in Addendum 4.**	
75	7/26/2023	Security Cables		Assurance Media	It is my understanding that the project is applicable for State of Delaware Prevailing Wage Rates and that BP2 Contract B-24 Structured Cabling includes Div 27 & Div 28 – covering Structured Cabling, Audio/Video, and Security Access Control. Also, the Contract B-24 Bid Form does not show any alternates being applicable. Please clarify scope requirement #15. Section 275300 states contractor to furnish complete system. Is the AV system not to be at prevailing wage rate, or are we to show an alternate price for the AV portion not based on prevailing wage rates?	EDiS	If AV equipment is furnished under Contract B-24, it will be by prevailing wage. This is will be reflected in Addendum 4. A voluntary alternate has been added to the bid form for Contract B-24.	3
76	7/26/2023	Security Cables		Assurance Media	Please provide Drawing Number that shows the work described in Scope point #19 that is required to be completed by B-24 contractor and/or provide further clarification etc…	EDiS	See specification section 122413 and Architectural drawings A102 and A-104 for locations of shades.	3
77	7/26/2023	Security Cables		Assurance Media	Please Clarify WAP outlets – Drawings indicate one category 6 cable and written spec states two category 6A.	CMTA	Detail has been modified to indicate cat6a patch. 2 cat6a shall be pulled to junction box for future proofing purposes. Only one will be connected to WAP at this time	3
78	7/26/2023	Security Cables	T100/ T103	Assurance Media	The Rack Symbols shown on T100 do not match the symbols for racks in the MDF detail on drawing T103. Please clarify total quantity of two post racks, four post racks, and any cabinets.	CMTA	Symbol changed on legend to reflect plans. 2 data racks shall be Ortonics MightyMo	3
79	7/26/2023	Security Cables	T104	Assurance Media	Incoming Service Provider may install their new service directly into the equipment rack. If B-24 contractor it to provide fiber optic cabling from wall to rack please clarify type of fiber and number of strands.	CMTA	This shall be confirmed with Owner. **EDiS to provide additional clarifications in Addendum 4.**	
80	7/26/2023	Security Cables	T103 Detail 2&3	Assurance Media	Will the electrical contractor be providing the main TGBB with main ground conductor in the MDF and then the B-24 contractor grounding all tray and racks to TGBB?	CMTA	Electrical Contractor shall provide all grounding.	3
81	7/26/2023	Security Cables		Assurance Media	It states electrical to be doing conduit work. Will electrical contractor be providing all conduit pathways for low voltage systems in all areas other than drop ceiling areas?	CMTA	Yes, Electrical Contractor shall provide all pathways, refer to AV equipment schedule for EC rough in requirements	3
83	7/27/2023		A105 Vest. A102	EDiS	What is the community information board?	BMG	This a custom plastic laminate on plywood-framed tackboard with lockable glass doors.	3
84	7/27/2023			EDiS	In Large Conference Room 103, SF-7, SF-8, and SF-9 are shown on the exterior walls. This exterior wall is detailed on 4/A302. Per this detail, there is the aforementioned storefront with a beam over top. The storefront per A-602 is 2'-0" tall. Per E-200 and T-101, there are both power and data outlets shown at normal height (18" AFF) at these storefront locations. Please advise if the outlets are properly shown or if adjustments need to be made to account for the storefront. If outlets are shown properly, please provide details on how to mount outlets at the glass.	BMG	The outlets shall move to an elevation above the windows. Updated drawings will be included in a forthcoming Addendum.	3
85	7/27/2023			Penn Lighting	Could you please submit a substitution request for the light fixture types listed below? Type U1 and site lighting types L1, L2, L3, L4, L5 and L6. These are the only fixture types on the project that currently do not have specific manufacturers listed for equivalents	BMG	Substitutions provided by Penn Lighting representative are acceptable.	3
86	7/27/2023	Security Cables		Advantech	The door hardware schedule states for Hardware Set #01 "Coordinate wiring and installation with GC / EC / Owner's Security Vendor. Will division 28 be direct with customer's security vendor?	CMTA	Wiring for this hardware set shall be by contract B-24.	3
87	7/27/2023	Security Cables		Advantech	I did not see any card readers on the drawings or in the door hardware schedule. What will the Galaxy Access Control system be controlling?	CMTA	There are no card readers on this property, Galaxy specification is not required.	3
88	7/27/2023	Security Cables		Advantech	Are we to provide the Network Video Recorder/Server? If yes: How many days retention will be required? What frame rate should the cameras be set to?	CMTA	Yes, store recordings for 30 days. Video level shall be "best" at H.265. Cameras shall be 10FPS and to record a continuous low resolution sptream at provided FPS and switch to high resolution upon motion detection.	3
89	7/27/2023	Security Cables		Advantech	The Access Control spec mentions "VMS integration with Hanwha WAVE video product line(s) or approved alternate brands". The WAVE VMS system does not meet the VMS spec "The VMS will not require any licenses to increase the number of supported devices, users, or servers" amongst some other points. Is there a different VMS we should use as a Basis of Design? Or should we include the maximum number of licenses the WAVE VMS will support (128)?	CMTA	There is no access control on this project, access control specification is not required.	3
90	7/27/2023	Security Cables		Advantech	Is there a Fire Alarm specification or just the General Notes?	CMTA	Fire Alarm Specification will be included with Addendum 3	3

91	7/27/2023	Security Cables		Advantech	Is there a preferred Fire Alarm manufacturer that should be used?	CMTA	This shall be confirmed with Owner. **EDiS to provide additional clarifications in Addendum 4.**	
92	7/27/2023	Security Cables		Advantech	Is the Fire Alarm system a voice evacuation system?	CMTA	Yes.	3
93	7/27/2023	Security Cables		Advantech	Is cellular communication the preferred communication path for the system?	CMTA	Yes.	3
94	7/27/2023	Security Cables		Advantech	Should monitoring and inspections be included with the bid? Or sent to the customer after award?	CMTA	Refer to specification provided under Addendum 3. Section 284600-3.08 Maintenance Service.	3
95	7/27/2023	Concrete		Cavan	In Volume 1 Section 000115 List of Drawings the issue date for the Architecturals and Structural Plans are dated 7/17/23 but the plans that are available are dated 7/14/23 is there later plans available dated 7/17/23?	BMG	Current Architectural drawings are 7/17/23 and Structural are 7/14/23.	3
96	7/27/2023	Metal Framing & Drywall		Master Interiors	In the 092900 Drywall spec (attached), they call for a level 5 finish in the corridors & lobbies. As this is more than a typical level 4, can you confirm this is what the Library wants for these areas?	BMG	Level 5 is required at Gallery 102 only. All other areas can be Level 4.	3
97	7/27/2023	Flooring	A401	Old World Tile	Reference elevation 4 on sheet A401 and the ceramic tile bid form spec section 004100-1. Alternate B4 does not affect toilet room 135. Can you please confirm toilet room 135 is to receive wall tile on all walls floor to ceiling as shown on elevation 4 sheet A401?	BMG	RM 135 will receive floor to ceiling tile on wet wall only. Remaining walls will be CWT base only.	3
98	7/27/2023	Flooring	A105	Old World Tile	Reference alternate B4 and the finish schedule on sheet A105. What is the base detail at the restroom's base bid? We understand wall tile on all walls is part of alternate B4.	BMG	CWT wall base is required for base bid. Product will be CWT-1. Note, RM 135 is not part of ADD Alternate B-4 and will receive floor to ceiling tile on wet wall only.	3
99	7/27/2023	Flooring	Scope	Old World Tile	Reference the ceramic tile and flooring contract scope of work. The scopes of work are asking for patching and leveling. At this time it is not possible to quantify the amount of patching and leveling that will be required for this project. This project has new concrete so we assume minor prep work will be required. We will assume all required substrate repair work will be one on a T&M basis or on a change order. Please confirm this is acceptable?	EDiS	Bidders will be responsible for all patching and leveling necessary for concrete floors within concrete tolerances . If concrete floors are outside of tolerance or an area has extensive damage that is deemed to be outside of concrete tolerances and is agreed to prior to placement of flooring, the Contractor would be compensated for this on either T&M or on a change order.	3
100	7/27/2023	Flooring	Scope	Old World Tile	Reference the ceramic tile scope of work. Line item 8 is asking for caulking or grouting to dissimilar material. Our grout and caulking material is non paintable and is made to be only applied to tile. For this reason, caulking to dissimilar material such as ceiling tile is done by others. Can line item 8 be removed from the scope of work?	EDiS	Ceramic tile contractor owns caulking or grouting of their materials to dissimilar materials. Grout or caulk materials would be to match approved grout color and would not be expected to be painted.	3
101	7/27/2023	Flooring		Old World Tile	Is Full coverage waterproofing or crack isolation required for the floor tile installation?	BMG	Crack isolation is required for all floor tile installations.	3
102	7/27/2023	Flooring		Old World Tile	Please confirm epoxy grout is required for the floor tile installation in room 135?	BMG	Yes, epoxy grout is required.	3
103	7/27/2023	Flooring		Old World Tile	Reference spec section 093013-3 Part 2.3.1. The spec states that PFT-1 should be "Aphelion Collection; Aurora or a comparable product by the following; a. American Marazzi Tile, In. b. Best Tile c. Daltile". Can you please confirm only that the basis of design material will be acceptable and any "comparable products" need to be approved prior to the bid date? We have concerns about bidders bidding with non approved material based on the wording of the spec.	BMG	Only Basis of Design material is acceptable unless an alternate is presented before and approved prior to bid date.	3
104	7/27/2023	Flooring		Old World Tile	Please reference spec sections 096513 and 096813. Both of these spec states that the basis of design material should be provided or a comparable product should be provided by a listed manufacturer. Please confirm all non basis of design material must be approved prior to the bid date? The spec leaves room for bidders to bid the work using non approved material.	BMG	Only Basis of Design material is acceptable unless an alternate is presented before and approved prior to bid date.	3
105	7/27/2023	Mechanical		DegliObizzi	Please provide a coil piping detail for DOAS-1	CMTA	This will be included with Addendum 3.	3
106	7/27/2023	Mechanical		DegliObizzi	Please provide a cooling tower pad detail	CMTA	Refer to structural drawings - detail will be included with Addendum 3	3

BECKER MORGAN GROUP

ARCHITECTURE
ENGINEERING

ADDENDUM 3

OWNER	X Harrington Public Library
ARCHITECT	X Becker Morgan Group, Inc.
CONSULTANTS	X Baker, Ingram, & Associates, CMTA Inc.
CONTRACTOR	X EDiS Company
FIELD	☐
OTHER	☐

DATE: 07/28/2023

PROJECT: Harrington Public Library

PROJECT NO: 2013138.06

You are hereby directed to execute promptly this Field Memo that interprets the Contract Documents or orders minor changes in the Work without change in Contract Sum or Contract Time.

If you consider that a change in Contract Sum or Contract Time is required, please submit your itemized proposal to the Architect immediately and before proceeding with this Work. If your proposal is found to be satisfactory and in proper order, this Field Memo will in that event be superseded by a Change Order.

Description:

1. Section 012300 – Alternates – Bid Pack B
    a. Paragraph 3.2/G/1 – **ADD** Room *135*.
2. Section 042000 – Unit Masonry
    a. Paragraph 2.6/B – **ADD** *(BK-2)* designation.
3. Section 072100 – Thermal Insulation
    a. Paragraph 1.2/B – **DELETE** text, *Section 072119 "Foamed-In-Place Insulation" for insulation at exterior walls.*
4. Section 072163 – Fluid Applied Insulative Coatings
    a. **ADD** spec section.
5. Section 092900 – Gypsum Board
    a. Paragraph 3.7/D/3 – **REVISE** to read, *Level 5: Gallery, 102*.
6. Section 284600 – Digital, Addressable Fire-Alarm System
    a. **ADD** spec section.

7. Drawing S101:
    a. **ADD** grids 21.5 and 26.3.
    b. **REVISE** size of tube along Grids A, 4, and 11 at low window in Large Conference Room.
    c. **REVISE** children's area alcove framing.

8. Drawing S102:
    a. **ADD** grids 21.5 and 26.3.
    b. **REVISE** size of tube along Grids A, D, 4, and 11 at high window in Large Conference Room.
    c. **ADD** roof screens and note.
    d. **REVISE** children's area alcove framing.

9. Drawing S201:
    a. **REVISE** Details 3, and 8.

10. Drawing S202:
    a. **REVISE** Details 1, 2, 15, 16, 21, and 22.

11. Drawing S203:

a. **ADD** Drawing S203.

12. Drawing S301:
    a. **REVISE** Details 8 and 9.
    b. **ADD** Details 10, 11, and 12.

13. Drawing S302:
    a. **REVISE** Details 1 and 2.

14. Drawing A003:
    a. Wall Type 2P (1 HR):
        i. **DELETE note, "**FIRE CAULK AT CEILING TYPE 4."
    b. Wall Types 2Q and 2R
        i. **REVISE** plywood to "LAMINATE (PL-1) ON ¾'' PLYWOOD."
    c. Wall Types 3A, 3B, and 4F
        i. **ADD** note, "PAINT GWB PT-3 BEHIND VERTICAL ENGINEERED WOOD SIDING."

15. Drawing A100:
    a. **DELETE** floor drain at Janitor 107 to match plumbing.
    b. **REVISE** floor box layout.
    c. **ADD** grids 21.5 and 26.3 to match structural.

16. Drawing A101:
    a. **ADD** grids 21.5 and 26.3 to match structural.
    b. **ADD** dimension string for grids.
    c. **ADD** dimensions as indicated on plan.
    d. **REVISE** wall types for thin brick at Children's Collection 116 and Teen Lounge 118.
    e. **ADD** Notes, "RAIN LEADER – SEE PLUMB" throughout plan.
    f. **REVISE** location of FEC at Adult Collection 117.
    g. **REVISE** metal stud chase to accommodate rain leaders throughout plan.
    h. **ADD** metal stud chase to accommodate rain leaders throughout plan.
    i. **ADD** elevation 9/A201.

17. Drawing A105:
    a. **REVISE/ADD** DS and notes throughout plan.
    b. **REVISE/ADD** DR and notes throughout plan.
    c. **REVISE** MB-1 location in Work Room 129.
    d. **REVISE** slatwall and tackboard location in Lounge 108.
    e. **DELETE** Detail 6/A403.
    f. **ADD** Detail 7/A403.
    g. **ADD** Details 7/A703, 8/A703 and 9/A703.
    h. Finish Schedule:
        i. **REVISE** walls from CWT to CWT-1/CWT-2.
        ii. **REVISE** base from CWT to CWT-1.
        iii. **DELETE** CWT from West, North, and South walls of Toilet, 135.
    i. Finish Schedule Legend:
        i. **ADD** "SW 6258 TRICORN BLACK MATTE" to PT-3.
        ii. **DELETE** CPT-2.
        iii. **REVISE** naming of CPT-3 to CPT-2.

18. Drawing A201:
    a. Detail 1:
        i. **REVISE** storefront height at Large Conference Room 103.
        ii. **REVISE** brick control joints.
    b. Detail 2:
        i. **REVISE** storefront height at Large Conference Room 103.
        ii. **REVISE** brick control joints.
    c. Detail 3:

i. **REVISE** brick control joints.

d. Detail 4:
   i. **REVISE** storefront height at Large Conference Room 103.
   ii. **REVISE** brick control joints.
e. Detail 5:
   i. **ADD** control joint tag.
f. Detail 6:
   i. **REVISE** storefront height at Large Conference Room 103.
g. Detail 9:
   i. **ADD** Detail.

19. Drawing A301:
   a. Detail 1:
      i. **ADD** MB-2 and tag, “MB-2” at applicable locations.
      ii. **ADD** note, “DR, TYP” in Large Conference Room 103.
      iii. **REVISE** graphical intent of PS-1 at Large Conference Room 103.
      iv. **REVISE** note, “PS-1 TYP. – SEE TECH” in Large Conference Room 103.
      v. **ADD** note, “PENDANT LIGHT, TYP. – SEE ELEC” in Large Conference Room 103.
   b. Detail 2:
      i. **ADD** GWB Reveal elevations at Children’s Collection 116 and Adult Collection 117.
      ii. **ADD** note, “GWB REVEAL, TYP” in Adult Collection 117.
      iii. **ADD** note, “DS BEYOND” in Adult Collection 117.
      iv. **ADD** note, “TB-2” in Children’s Collection 116.
   c. Detail 3:
      i. **ADD** note, “DR” to Large Conference Room 103.
      ii. **REVISE** note to “PANELBOARD – SEE ELEC” in Elec. 132.
      iii. **ADD** note, “F.E.C.” in Work Room 129.
      iv. **ADD** note, “MS-1” in Storage 128.
   d. Detail 4:
      i. **REVISE** DS length at Adult Collection 117.
      ii. **ADD** note, “DS” at Computers 115 and Adult Collection 117.
   e. Detail 5:
      i. **REVISE** wall type at Toilet 135.
      ii. **ADD** 1/A521 SIM and dimension at eave overhang along grid 14.
      iii. **REVISE** GWB Reveal elevation to 15’-4” at Children’s Collection 116.
      iv. **ADD** note, “DS” at Children’s Collection 116.
   f. Detail 6:
      i. **REVISE** GWB Reveal elevation to 15’-4” at Adult Collection 117.
      ii. **REVISE** DS length at Adult Collection 117.
      iii. **ADD** note, “DS” at Adult Collection 117.
      iv. **ADD** note, “DS BEYOND.”

20. Drawing A302:
   a. Detail 1:
      i. **REVISE** storefront height.
      ii. **REVISE** detail to match structural.
      iii. **ADD** dimension from grid to centerline of beam.
   b. Detail 2:
      i. **REVISE** storefront height.
      ii. **REVISE** detail to match structural.
      iii. **ADD** spot elevation.
      iv. **REVISE** extent of GWB at ceiling.
   c. Detail 3:
      i. **REVISE** storefront height.
      ii. **REVISE** detail to match structural.
      iii. **ADD** spot elevation.
      iv. **ADD** Alum. Closure angle and note.
      v. **REVISE** wall at gallery.

d. Detail 4:
    i. **REVISE** storefront height.
    ii. **REVISE** detail to match structural.
    iii. **ADD** dimension from grid to centerline of beam.

21. Drawing A401:
    a. Detail 1:
        i. **ADD** metal stud chase for rain leader.
        ii. **ADD** note, “RAIN LEADER – SEE PLUMB.”
    b. Detail 2:
        i. **ADD** note, “RAIN LEADER – SEE PLUMB.”
        ii. **REVISE** wall type in Toilet 135 to Wall Type 2K.
    c. Detail 5:
        i. **ADD** metal stud chase for rain leader.
        ii. **ADD** note, “RAIN LEADER – SEE PLUMB.”
    d. Detail 6:
        i. **REVISE** graphical intent.

22. Drawing A402:
    a. Detail 8:
        i. **REVISE** note, “LAMINATE ON PLYWOOD – PL-1 – BULKHEAD”.
    b. Detail 8A
        i. **REVISE** note, “3/4” REVEAL (FRY REGLET DRMF SERIES) ALONG PERIMETER OF RECESSED PANEL”.
        ii. **REVISE** note, “LAMINATE ON PLYWOOD – PL-1 – BULKHEAD”.

23. Drawing A403:
    a. **DELETE** Detail 6/A403.
    b. **ADD** Detail 7/A403.

24. Drawing A510:
    a. Detail 1:
        i. **REVISE** detail to match structural.
    b. **REVISE** Detail 3.
    c. **ADD** Details 5-7.
    d. Detail 11:
        i. **REVISE** signage corners to be 90 degrees in lieu of rounded edges.

25. Drawing A520
    a. Detail 1:
        i. **ADD** weather barrier deflection joint.
        ii. **REVISE** bent plate to match structural.
    b. Detail 2:
        i. **ADD** weather barrier deflection joint.
        ii. **REVISE** bent plate to match structural.
        iii. **REVISE** note, “BEAM - SEE STRUCT; WRAPPED IN FLUID APPLIED INSULATIVE COATING.”
    c. Detail 3:
        i. **ADD** weather barrier deflection joint.
        ii. **REVISE** bent plate to match structural.
        iii. **ADD** dimension from back face of angle to light gage deck closure.
        iv. **REVISE** note, “BEAM - SEE STRUCT; WRAPPED IN FLUID APPLIED INSULATIVE COATING.”

26. Drawing A521
    a. Detail 1:
        i. **REVISE** note to “FILL DECK FLUTES (TOP AND BOTTOM) WITH MINERAL WOOL INSULATION.”

b. Detail 3:
    i. **REVISE** detail to match structural.
    ii. **ADD** GWB control joint and note.

27. Drawing A522
    a. Detail 2:
        i. **REVISE** detail to match structural.
        ii. **ADD** GWB control joint and note.
    b. Detail 3:
        i. **REVISE** detail to match structural.
        ii. **ADD** spot elevation.
        iii. **ADD** low rise spray foam and note.

28. Drawing A523:
    a. Detail 4
        i. **ADD** weather barrier deflection joint.

29. Drawing A534:
    a. **ADD** Drawing, 'TYPICAL AIR BARRIER/TRANSITION MEMBRANE DETAILS.'

30. Drawing A601:
    a. Door Schedule:
        i. **ADD** ¾'' undercut to the following doors: 107/1, 109/1, 110/1, 111/1, 112/1, 122/1, 128A/1, 135/1, and 136/1.

31. Drawing A602:
    a. SF-14 and SF-15
        i. **REVISE** storefront height.

32. Drawing A603:
    a. Detail H25:
        i. **REVISE** detail to match structural.

33. Drawing A605:
    a. Detail S13:
        i. **REVISE** detail to match structural.

34. Drawing A701:
    a. Detail 5:
        i. **REVISE** MB-1 location.
    b. Detail 8:
        i. **ADD** Base and Note, "BASE AS SCHED."
        ii. **ADD** dimension.
    c. Detail 17:
        i. **ADD** reveal pattern and note.
        ii. **ADD** notes.

35. Drawing A702:
    a. Detail 1:
        i. **REVISE** DS length.
        ii. **REVISE** GWB Reveal elevation to 15'-4".
    b. Detail 2:
        i. **REVISE** wall height at Teen Lounge 118.
        ii. **ADD** spot elevation.
        iii. **ADD** 6x6 posts and note at Teen Lounge 118.
        iv. **ADD** 6x12 Wood Beam and note.
        v. **ADD** note, "CEILING TYPE 5 - 85" L SUSPENDED ACOUSTICAL BAFFLE AT 10' - 0" AFF - LAP BAFFLES (6)."

c. Detail 3:
    i. **REVISE** GWB Reveal elevation to 15’-4”.
d. Detail 4:
    i. **ADD** GWB reveal and spot elevation.
e. Detail 5:
    i. **ADD** GWB reveal and spot elevation.
    ii. **ADD** MB-2 and tag, “MB-2” at applicable locations.
    iii. **REVISE** graphical intent of PS-1.
f. Detail 6:
    i. **ADD** GWB reveal and spot elevation.
    ii. **ADD** spot elevation.
g. Detail 7:
    i. **ADD** GWB reveal and spot elevation.

36. Drawing A703:
    a. Detail 1:
        i. **ADD** spot elevation.
    b. Detail 4:
        i. **ADD** spot elevation.
        ii. **ADD** note, “CEILING TYPE 5 - 85" L SUSPENDED ACOUSTICAL BAFFLE AT 10' - 0" AFF - LAP BAFFLES (6).”
        iii. **ADD** note, “2' - 0" O.C. WOOD JOIST CEILING.”
    c. Detail 5
        i. **DELETE** note, “GRILLE – SEE MECH.”
        ii. **REVISE** elevation of 2x12 Joist Ceiling to 12’ - 0’’ AFF.
        iii. **REVISE** elevation of wall to 8’ – 0’’ AFF.
        iv. **ADD** 6x6 posts and note at Teen Lounge 118.
        v. **ADD** 6x12 Wood Beam and note.
    d. Detail 6:
        i. **REVISE** extents of detail**.**
        ii. **REVISE** ceiling height.
        iii. **ADD** 6x6 posts and note at Teen Lounge 118.
        iv. **ADD** 6x12 Wood Beam and note.
    e. **ADD** Details 7, 8, and 9.

37. Drawing P-101, P-200, P-400:
    a. **DELETE** 3/4" cold water supply piping connection to humidifier in Mech 131.
    b. 3/4" Gas supply piping to be bid as add-alternate.

38. Drawing M-100, M-201, M-403, M-503, M-601:
    a. **DELETE** humidifier in Mech 131 and associated humidity sensor in Harrington Room 119.

39. Drawing M-101, M-201, M-602:
    a. **REVISE** diffuser types in the following rooms: Storage 121, Toilet 122, Friends Store 128, Storage 128A, Storage 136, Break Room 138.

40. Drawing M-503:
    a. **ADD** typical Coil Connection Detail.

41. Drawing E-000, E-200, E-501:
    a. **ADD** hand dryer power connections.

42. Drawing E-100:
    a. **REVISE** R1 fixture in Friends’ Store 128 to be centered in room.
    b. **ADD** motorized roller shade as bid add-alternate in Large Conference Room 103.
    c. **DELETE** switch in Makers/Multipurpose room 113.

43. Drawing E-100, E-501:

a. **DELETE** motorized roller shade connections and retain just the single motor shade in the Large Conference Room 103 under base bid set.

44. Drawings E-100 and E-502:
    a. **ADD** B1 wall fixture with associated control and spec on lighting fixture schedule.
    b. **ADD** C1 cove light fixture with associated add alternate B-3 changes and spec on lighting fixture schedule.
45. Drawing E-200:
    a. **REVISE** location of counter receptacles in Makerspace/Multipurpose Room 113.
    b. **REVISE** receptacle heights to coordinate with storefront in Large Conference Room 103.

46. Drawing E-200, E-500, E-601:
    a. **REVISE** utility service entrance to show CT cabinet.

47. Drawing E-200, E-501:
    a. **DELETE** power to humidifier in Mech 131.

48. Drawing E-300:
    a. **ADD** tag note to FAAP.

49. Drawing E-400:
    a. **REVISE** Fixture Type L6.

50. Drawing E-502:
    a. **ADD** new lighting fixture schedule sheet.

51. Drawing T-100:
    a. **REVISE** legend to show devices that are in model.

52. Drawing T-101:
    a. **ADD** a tag note to Plan North data outlets in large conference room specifying the height of the devices.
    b. **ADD** a data outlet with tag note in Gallery, Lounge, Children’s Program, Large Conference Rooms, and Children's Collection.
    c. **ADD** a tag note to data outlets in Makerspace/Multi-Purpose Room and Harrington Room.
    d. **DELETE** a 2d data drop from the desk in Circulation Room 114.

53. Drawing T-103:
    a. **REVISE** detail 1 to indicate cat6a.

Attachments:

Baker, Ingram, & Associates drawings S101, S102, S201, S202, S203, S301, and S302 dated 07.28.2023

Becker Morgan Group, Inc. drawings A003, A100, A101, A105, A201, A301, A302, A401, A402, A403, A510, A520, A521, A522, A523, A534, A601, A602, A603, A605, A701, A702, and A703 dated 07.28.2023

CMTA, Inc. drawings P-101, P-200, P-400, M-100, M-101, M-201, M-403, M-503, M-602, E-000, E-100, E-200, E-300, E-400, E-500, E-501, E-502, E-601, T-100, T-101, and T-103 dated 07.25.2023

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